



Full wwPDB NMR Structure Validation Report ⓘ

Jun 3, 2023 – 04:38 AM EDT

PDB ID : 5W8Y
BMRB ID : 30309
Title : Solution Structure of XPH1, a Hybrid Sequence of Xfaso 1 and Pfl 6, Two Cro Proteins With Different Folds
Authors : Kumirov, V.K.; Dykstra, E.M.; Cordes, M.H.
Deposited on : 2017-06-22

This is a Full wwPDB NMR Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/NMRValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
wwPDB-RCI : v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV : Wang et al. (2010)
wwPDB-ShiftChecker : v1.2
BMRB Restraints Analysis : v1.2
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.33

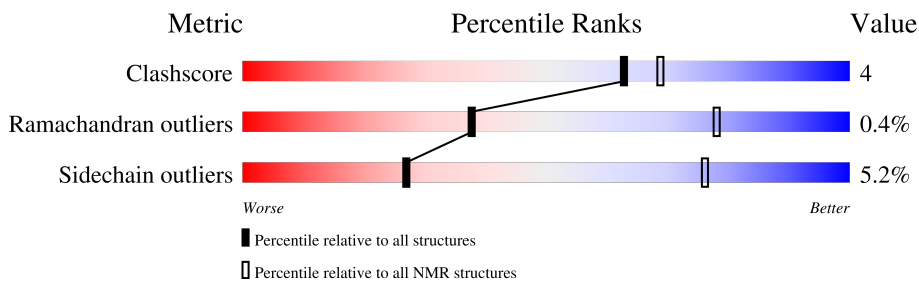
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 89%.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric | Whole archive (#Entries) | NMR archive (#Entries) |
|-----------------------|-----------------------------|---------------------------|
| Clashscore | 158937 | 12864 |
| Ramachandran outliers | 154571 | 11451 |
| Sidechain outliers | 154315 | 11428 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and a grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | A | 73 | |

2 Ensemble composition and analysis

This entry contains 20 models. Model 1 is the overall representative, medoid model (most similar to other models).

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues | | | |
|--------------------------------------|-----------------------|-------------------|--------------|
| Well-defined core | Residue range (total) | Backbone RMSD (Å) | Medoid model |
| 1 | A:2-A:58 (57) | 0.41 | 1 |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 2 clusters. No single-model clusters were found.

| Cluster number | Models |
|----------------|---|
| 1 | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20 |
| 2 | 11, 14 |

3 Entry composition

There is only 1 type of molecule in this entry. The entry contains 980 atoms, of which 494 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called protein XPH1.

| Mol | Chain | Residues | Atoms | | | | | | Trace |
|-----|-------|----------|-------|-----|-----|----|----|---|-------|
| | | | Total | C | H | N | O | S | |
| 1 | A | 65 | 980 | 300 | 494 | 93 | 90 | 3 | 0 |

There are 17 discrepancies between the modelled and reference sequences:

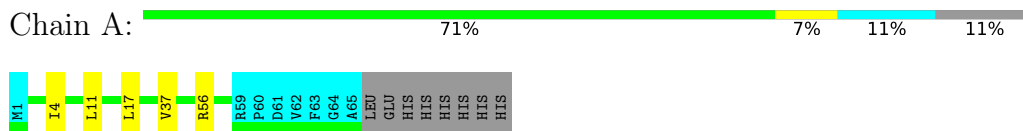
| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|---------------------|----------------|
| A | 20 | ALA | SER | engineered mutation | UNP A0A060H7L8 |
| A | 24 | ASN | ARG | engineered mutation | UNP A0A060H7L8 |
| A | 30 | GLN | ASN | engineered mutation | UNP A0A060H7L8 |
| A | 40 | GLY | GLU | engineered mutation | UNP A0A060H7L8 |
| A | 47 | LEU | ARG | engineered mutation | UNP A0A060H7L8 |
| A | 48 | TYR | VAL | engineered mutation | UNP A0A060H7L8 |
| A | 50 | ASP | ASN | engineered mutation | UNP A0A060H7L8 |
| A | 52 | ARG | ALA | engineered mutation | UNP A0A060H7L8 |
| A | 54 | GLU | ILE | engineered mutation | UNP A0A060H7L8 |
| A | 66 | LEU | - | expression tag | UNP A0A060H7L8 |
| A | 67 | GLU | - | expression tag | UNP A0A060H7L8 |
| A | 68 | HIS | - | expression tag | UNP A0A060H7L8 |
| A | 69 | HIS | - | expression tag | UNP A0A060H7L8 |
| A | 70 | HIS | - | expression tag | UNP A0A060H7L8 |
| A | 71 | HIS | - | expression tag | UNP A0A060H7L8 |
| A | 72 | HIS | - | expression tag | UNP A0A060H7L8 |
| A | 73 | HIS | - | expression tag | UNP A0A060H7L8 |

4 Residue-property plots

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

- Molecule 1: protein XPH1

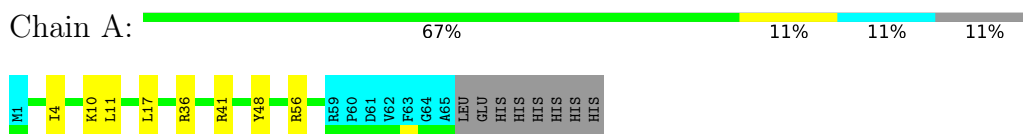


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

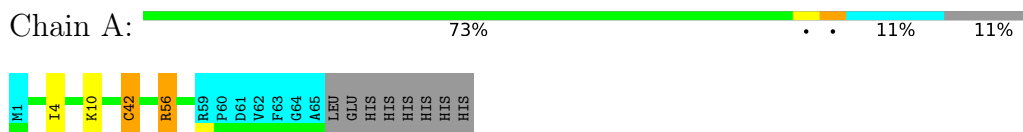
4.2.1 Score per residue for model 1 (medoid)

- Molecule 1: protein XPH1



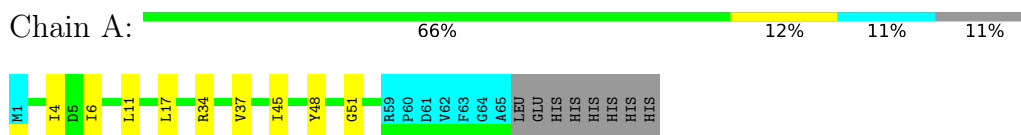
4.2.2 Score per residue for model 2

- Molecule 1: protein XPH1



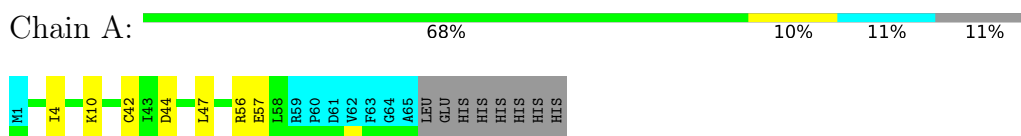
4.2.3 Score per residue for model 3

- Molecule 1: protein XPH1



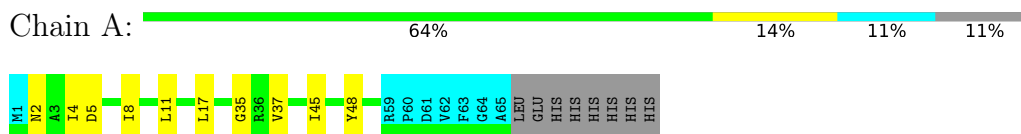
4.2.4 Score per residue for model 4

- Molecule 1: protein XPH1



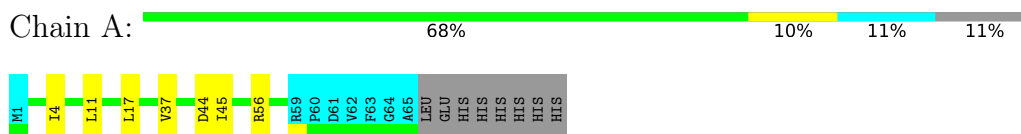
4.2.5 Score per residue for model 5

- Molecule 1: protein XPH1



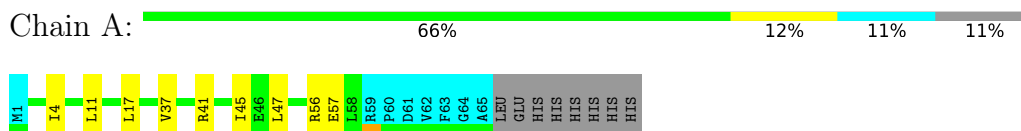
4.2.6 Score per residue for model 6

- Molecule 1: protein XPH1



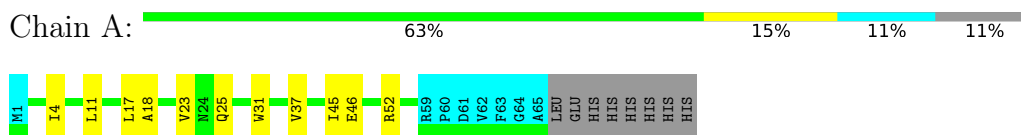
4.2.7 Score per residue for model 7

- Molecule 1: protein XPH1



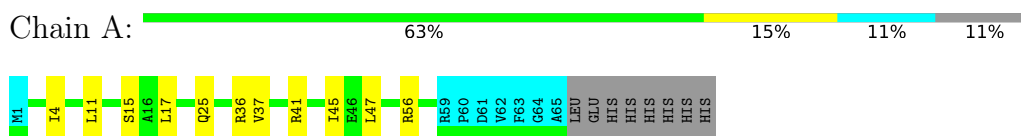
4.2.8 Score per residue for model 8

- Molecule 1: protein XPH1



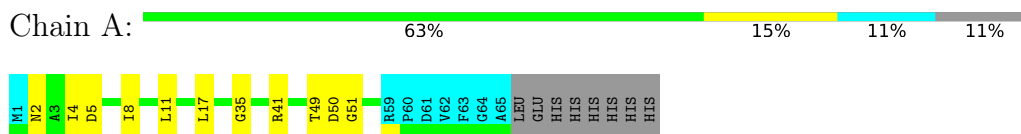
4.2.9 Score per residue for model 9

- Molecule 1: protein XPH1



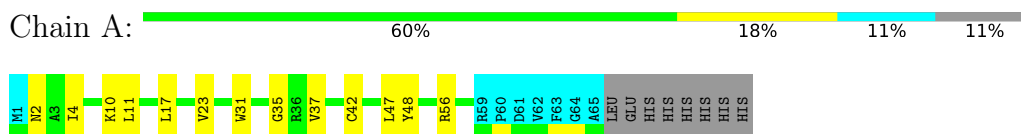
4.2.10 Score per residue for model 10

- Molecule 1: protein XPH1



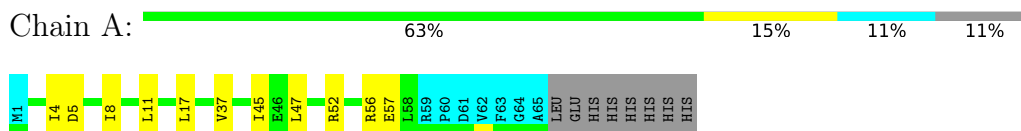
4.2.11 Score per residue for model 11

- Molecule 1: protein XPH1



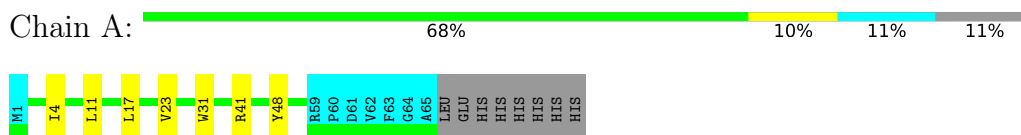
4.2.12 Score per residue for model 12

- Molecule 1: protein XPH1



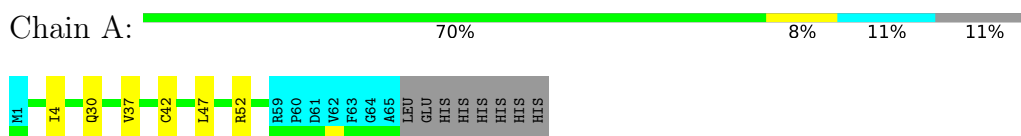
4.2.13 Score per residue for model 13

- Molecule 1: protein XPH1



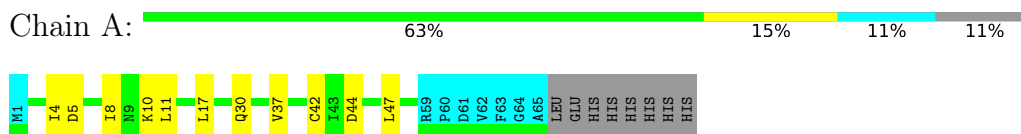
4.2.14 Score per residue for model 14

- Molecule 1: protein XPH1



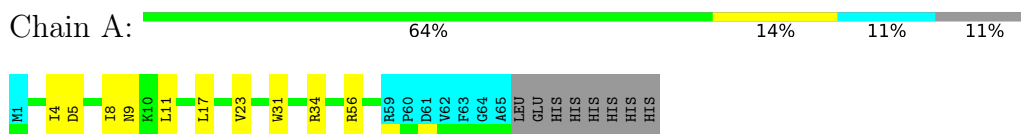
4.2.15 Score per residue for model 15

- Molecule 1: protein XPH1



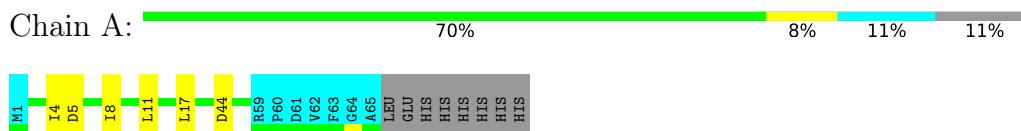
4.2.16 Score per residue for model 16

- Molecule 1: protein XPH1



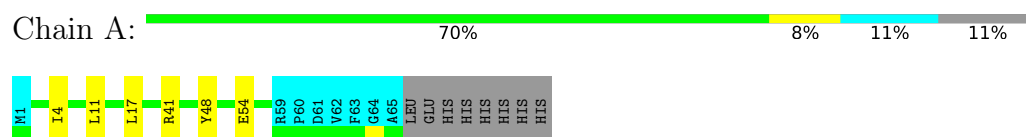
4.2.17 Score per residue for model 17

- Molecule 1: protein XPH1



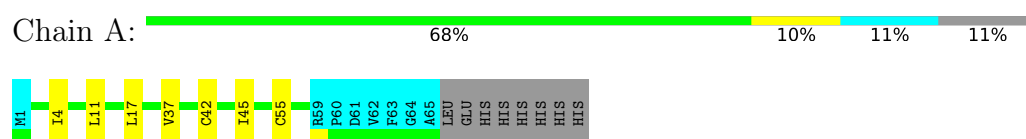
4.2.18 Score per residue for model 18

- Molecule 1: protein XPH1



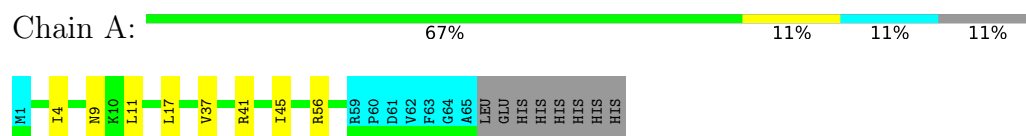
4.2.19 Score per residue for model 19

- Molecule 1: protein XPH1



4.2.20 Score per residue for model 20

- Molecule 1: protein XPH1



5 Refinement protocol and experimental data overview

The models were refined using the following method: *torsion angle dynamics using CYANA*.

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *lowest energy*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification | Version |
|---------------|-----------------------|---------|
| CNS | refinement | |
| CYANA | structure calculation | |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

| | |
|--|----------------|
| Chemical shift file(s) | working_cs.cif |
| Number of chemical shift lists | 1 |
| Total number of shifts | 805 |
| Number of shifts mapped to atoms | 764 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 41 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 89% |

6 Model quality i

6.1 Standard geometry i

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

6.2 Too-close contacts i

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | A | 425 | 433 | 433 | 4±1 |
| All | All | 8500 | 8660 | 8660 | 75 |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 4.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-----------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:11:LEU:HD12 | 1:A:17:LEU:HA | 0.64 | 1.69 | 9 | 17 |
| 1:A:37:VAL:HG22 | 1:A:42:CYS:SG | 0.52 | 2.43 | 11 | 3 |
| 1:A:4:ILE:HD12 | 1:A:4:ILE:H | 0.51 | 1.65 | 7 | 20 |
| 1:A:37:VAL:HG11 | 1:A:45:ILE:HD12 | 0.50 | 1.83 | 8 | 9 |
| 1:A:42:CYS:O | 1:A:55:CYS:SG | 0.49 | 2.70 | 19 | 1 |
| 1:A:2:ASN:HD22 | 1:A:35:GLY:HA2 | 0.48 | 1.67 | 11 | 1 |
| 1:A:5:ASP:HA | 1:A:8:ILE:HD12 | 0.48 | 1.85 | 17 | 6 |
| 1:A:42:CYS:HB2 | 1:A:57:GLU:HB3 | 0.47 | 1.85 | 4 | 1 |
| 1:A:23:VAL:HG11 | 1:A:31:TRP:HH2 | 0.46 | 1.69 | 11 | 2 |
| 1:A:10:LYS:HG3 | 1:A:48:TYR:O | 0.45 | 2.11 | 11 | 1 |
| 1:A:23:VAL:HG11 | 1:A:31:TRP:CH2 | 0.45 | 2.47 | 16 | 3 |
| 1:A:2:ASN:ND2 | 1:A:35:GLY:HA2 | 0.44 | 2.27 | 10 | 3 |
| 1:A:41:ARG:HE | 1:A:41:ARG:HA | 0.43 | 1.73 | 18 | 1 |
| 1:A:41:ARG:HA | 1:A:41:ARG:NE | 0.42 | 2.30 | 20 | 1 |

Continued on next page...

Continued from previous page...

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|----------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:49:THR:O | 1:A:51:GLY:N | 0.41 | 2.53 | 10 | 1 |
| 1:A:18:ALA:HB3 | 1:A:25:GLN:NE2 | 0.41 | 2.30 | 8 | 1 |
| 1:A:15:SER:HA | 1:A:25:GLN:OE1 | 0.41 | 2.16 | 9 | 1 |
| 1:A:42:CYS:SG | 1:A:56:ARG:N | 0.41 | 2.94 | 2 | 1 |
| 1:A:44:ASP:HA | 1:A:47:LEU:HD12 | 0.40 | 1.93 | 4 | 1 |
| 1:A:41:ARG:NE | 1:A:41:ARG:HA | 0.40 | 2.32 | 10 | 1 |

6.3 Torsion angles [\(i\)](#)

6.3.1 Protein backbone [\(i\)](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the backbone conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|--------------|------------|------------|-------------|----|
| 1 | A | 57/73 (78%) | 54±1 (95±2%) | 3±1 (5±2%) | 0±0 (0±1%) | 38 | 78 |
| All | All | 1140/1460 (78%) | 1078 (95%) | 57 (5%) | 5 (0%) | 38 | 78 |

All 3 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 41 | ARG | 3 |
| 1 | A | 51 | GLY | 1 |
| 1 | A | 50 | ASP | 1 |

6.3.2 Protein sidechains [\(i\)](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR entries. The Analysed column shows the number of residues for which the sidechain conformation was analysed and the total number of residues.

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|--------------|------------|-------------|----|
| 1 | A | 43/57 (75%) | 41±1 (95±3%) | 2±1 (5±3%) | 27 | 76 |
| All | All | 860/1140 (75%) | 815 (95%) | 45 (5%) | 27 | 76 |

All 15 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1 | A | 56 | ARG | 10 |
| 1 | A | 47 | LEU | 6 |
| 1 | A | 48 | TYR | 5 |
| 1 | A | 10 | LYS | 4 |
| 1 | A | 44 | ASP | 3 |
| 1 | A | 52 | ARG | 3 |
| 1 | A | 36 | ARG | 2 |
| 1 | A | 34 | ARG | 2 |
| 1 | A | 57 | GLU | 2 |
| 1 | A | 30 | GLN | 2 |
| 1 | A | 9 | ASN | 2 |
| 1 | A | 42 | CYS | 1 |
| 1 | A | 46 | GLU | 1 |
| 1 | A | 41 | ARG | 1 |
| 1 | A | 54 | GLU | 1 |

6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

6.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [i](#)

There are no ligands in this entry.

6.7 Other polymers [i](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues

There are no chain breaks in this entry.

7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 89% for the well-defined parts and 88% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *XPH1_amb.bmr.b.php*

7.1.1 Bookkeeping

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

| | |
|---|-----|
| Total number of shifts | 805 |
| Number of shifts mapped to atoms | 764 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 41 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 2 |

The following assigned chemical shifts were not mapped to the molecules present in the coordinate file.

- No matching atom found in the structure. All 41 occurrences are reported below.

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 66 | LEU | C | 177.373 | 0.000 | 1 |
| 1 | A | 66 | LEU | CA | 55.119 | 0.086 | 1 |
| 1 | A | 66 | LEU | CB | 42.255 | 0.014 | 1 |
| 1 | A | 66 | LEU | CD1 | 24.998 | 0.000 | 1 |
| 1 | A | 66 | LEU | CD2 | 23.405 | 0.011 | 1 |
| 1 | A | 66 | LEU | H | 8.199 | 0.001 | 1 |
| 1 | A | 66 | LEU | HA | 4.251 | 0.002 | 1 |
| 1 | A | 66 | LEU | HB2 | 1.574 | 0.005 | 2 |
| 1 | A | 66 | LEU | HB3 | 1.483 | 0.004 | 2 |
| 1 | A | 66 | LEU | N | 120.595 | 0.021 | 1 |
| 1 | A | 66 | LEU | HD11 | 0.871 | 0.002 | 1 |
| 1 | A | 66 | LEU | HD12 | 0.871 | 0.002 | 1 |
| 1 | A | 66 | LEU | HD13 | 0.871 | 0.002 | 1 |
| 1 | A | 66 | LEU | HD21 | 0.808 | 0.003 | 1 |

Continued on next page...

Continued from previous page...

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|-----|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 66 | LEU | HD22 | 0.808 | 0.003 | 1 |
| 1 | A | 66 | LEU | HD23 | 0.808 | 0.003 | 1 |
| 1 | A | 67 | GLU | C | 173.892 | 0.000 | 1 |
| 1 | A | 67 | GLU | CA | 56.538 | 0.033 | 1 |
| 1 | A | 67 | GLU | CB | 30.35 | 0.000 | 1 |
| 1 | A | 67 | GLU | H | 8.21 | 0.001 | 1 |
| 1 | A | 67 | GLU | HA | 4.146 | 0.003 | 1 |
| 1 | A | 67 | GLU | HB2 | 2.137 | 0.013 | 2 |
| 1 | A | 67 | GLU | HB3 | 2.113 | 0.014 | 2 |
| 1 | A | 67 | GLU | N | 120.913 | 0.044 | 1 |
| 1 | A | 67 | GLU | HG2 | 1.841 | 0.004 | 2 |
| 1 | A | 67 | GLU | HG3 | 1.841 | 0.004 | 2 |
| 1 | A | 68 | HIS | C | 176.084 | 0.000 | 1 |
| 1 | A | 68 | HIS | CA | 57.18 | 0.000 | 1 |
| 1 | A | 68 | HIS | CB | 30.167 | 0.000 | 1 |
| 1 | A | 68 | HIS | H | 8.21 | 0.002 | 1 |
| 1 | A | 68 | HIS | HA | 4.403 | 0.000 | 1 |
| 1 | A | 68 | HIS | HB2 | 3.188 | 0.000 | 2 |
| 1 | A | 68 | HIS | HB3 | 3.048 | 0.000 | 2 |
| 1 | A | 68 | HIS | N | 125.4 | 0.017 | 1 |
| 1 | A | 69 | HIS | CA | 55.913 | 0.000 | 1 |
| 1 | A | 69 | HIS | CB | 30.221 | 0.000 | 1 |
| 1 | A | 69 | HIS | H | 8.312 | 0.002 | 1 |
| 1 | A | 69 | HIS | HA | 4.541 | 0.000 | 1 |
| 1 | A | 69 | HIS | N | 119.724 | 0.018 | 1 |
| 1 | A | 69 | HIS | HB2 | 2.995 | 0.012 | 2 |
| 1 | A | 69 | HIS | HB3 | 2.995 | 0.012 | 2 |

7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

| Nucleus | # values | Correction \pm precision, ppm | Suggested action |
|------------------------|----------|---------------------------------|----------------------------|
| $^{13}\text{C}_\alpha$ | 69 | -0.10 ± 0.28 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$ | 61 | 0.16 ± 0.20 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$ | 66 | -0.21 ± 0.16 | None needed (< 0.5 ppm) |
| ^{15}N | 66 | 1.44 ± 0.59 | Should be applied |

7.1.3 Completeness of resonance assignments [i](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 89%, i.e. 678 atoms were assigned a chemical shift out of a possible 762. 0 out of 9 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹ H | ¹³ C | ¹⁵ N |
|-----------|----------------|----------------|-----------------|-----------------|
| Backbone | 287/288 (100%) | 118/118 (100%) | 113/114 (99%) | 56/56 (100%) |
| Sidechain | 371/453 (82%) | 270/296 (91%) | 92/133 (69%) | 9/24 (38%) |
| Aromatic | 20/21 (95%) | 10/10 (100%) | 9/10 (90%) | 1/1 (100%) |
| Overall | 678/762 (89%) | 398/424 (94%) | 214/257 (83%) | 66/81 (81%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 88%, i.e. 764 atoms were assigned a chemical shift out of a possible 869. 0 out of 10 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹ H | ¹³ C | ¹⁵ N |
|-----------|---------------|----------------|-----------------|-----------------|
| Backbone | 323/327 (99%) | 133/134 (99%) | 128/130 (98%) | 62/63 (98%) |
| Sidechain | 417/511 (82%) | 304/334 (91%) | 103/150 (69%) | 10/27 (37%) |
| Aromatic | 24/31 (77%) | 12/15 (80%) | 11/15 (73%) | 1/1 (100%) |
| Overall | 764/869 (88%) | 449/483 (93%) | 242/295 (82%) | 73/91 (80%) |

7.1.4 Statistically unusual chemical shifts [i](#)

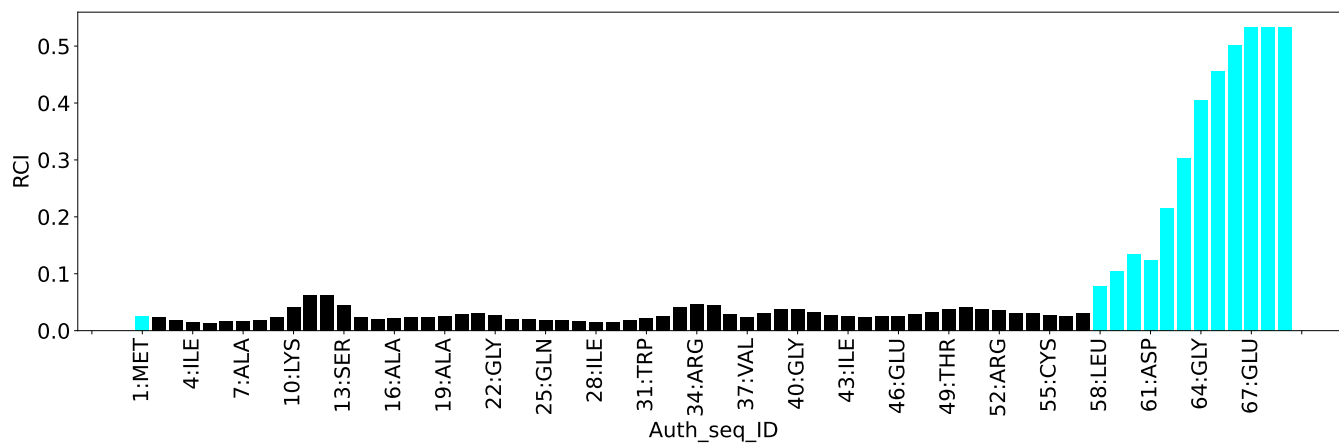
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1 | A | 38 | PRO | HD2 | 1.49 | 1.93 – 5.38 | -6.3 |
| 1 | A | 38 | PRO | HD3 | 1.40 | 1.76 – 5.48 | -6.0 |

7.1.5 Random Coil Index (RCI) plots [i](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition. If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description | Value |
|--|-------|
| Total distance restraints | 1419 |
| Intra-residue ($ i-j =0$) | 341 |
| Sequential ($ i-j =1$) | 362 |
| Medium range ($ i-j >1$ and $ i-j <5$) | 271 |
| Long range ($ i-j \geq 5$) | 361 |
| Inter-chain | 0 |
| Hydrogen bond restraints | 84 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 0 |
| Number of unmapped restraints | 0 |
| Number of restraints per residue | 19.4 |
| Number of long range restraints per residue ¹ | 4.9 |

¹Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å) | Average number of violations per model | Max (Å) |
|------------------|--|---------|
| 0.1-0.2 (Small) | 28.7 | 0.2 |
| 0.2-0.5 (Medium) | 21.9 | 0.49 |
| >0.5 (Large) | 0.1 | 0.58 |

8.2.2 Average number of dihedral-angle violations per model

Dihedral-angle violations less than 1° are not included in the calculation. There are no dihedral-angle violations

9 Distance violation analysis [i](#)

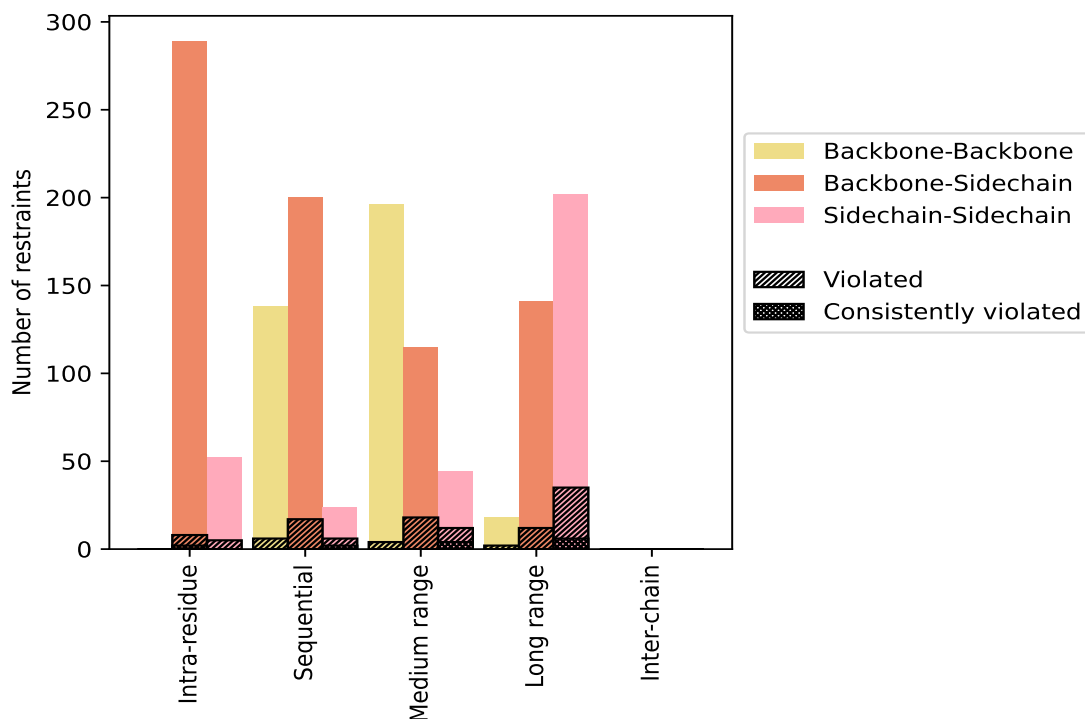
9.1 Summary of distance violations [i](#)

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restrains type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|---|-------------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| Intra-residue ($i-j =0$) | 341 | 24.0 | 13 | 3.8 | 0.9 | 2 | 0.6 | 0.1 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 289 | 20.4 | 8 | 2.8 | 0.6 | 2 | 0.7 | 0.1 |
| Sidechain-Sidechain | 52 | 3.7 | 5 | 9.6 | 0.4 | 0 | 0.0 | 0.0 |
| Sequential ($i-j =1$) | 362 | 25.5 | 29 | 8.0 | 2.0 | 2 | 0.6 | 0.1 |
| Backbone-Backbone | 138 | 9.7 | 6 | 4.3 | 0.4 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 200 | 14.1 | 17 | 8.5 | 1.2 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 24 | 1.7 | 6 | 25.0 | 0.4 | 2 | 8.3 | 0.1 |
| Medium range ($i-j >1$ & $i-j <5$) | 271 | 19.1 | 32 | 11.8 | 2.3 | 4 | 1.5 | 0.3 |
| Backbone-Backbone | 112 | 7.9 | 2 | 1.8 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 115 | 8.1 | 18 | 15.7 | 1.3 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 44 | 3.1 | 12 | 27.3 | 0.8 | 4 | 9.1 | 0.3 |
| Long range ($i-j \geq 5$) | 361 | 25.4 | 49 | 13.6 | 3.5 | 6 | 1.7 | 0.4 |
| Backbone-Backbone | 18 | 1.3 | 2 | 11.1 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 141 | 9.9 | 12 | 8.5 | 0.8 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 202 | 14.2 | 35 | 17.3 | 2.5 | 6 | 3.0 | 0.4 |
| Inter-chain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hydrogen bond | 84 | 5.9 | 2 | 2.4 | 0.1 | 0 | 0.0 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 1419 | 100.0 | 125 | 8.8 | 8.8 | 14 | 1.0 | 1.0 |
| Backbone-Backbone | 352 | 24.8 | 12 | 3.4 | 0.8 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 745 | 52.5 | 55 | 7.4 | 3.9 | 2 | 0.3 | 0.1 |
| Sidechain-Sidechain | 322 | 22.7 | 58 | 18.0 | 4.1 | 12 | 3.7 | 0.8 |

¹ percentage calculated with respect to the total number of distance restraints, ² percentage calculated with respect to the number of restraints in a particular restraint category, ³ violated in at least one model, ⁴ violated in all the models

9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfied bonds are counted in their appropriate category on the x-axis

9.2 Distance violation statistics for each model [i](#)

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 1 | 2 | 10 | 16 | 21 | 0 | 49 | 0.21 | 0.42 | 0.09 | 0.18 |
| 2 | 2 | 13 | 12 | 19 | 0 | 46 | 0.2 | 0.35 | 0.07 | 0.18 |
| 3 | 3 | 9 | 12 | 23 | 0 | 47 | 0.22 | 0.4 | 0.08 | 0.19 |
| 4 | 5 | 14 | 18 | 21 | 0 | 58 | 0.2 | 0.39 | 0.07 | 0.18 |
| 5 | 2 | 14 | 12 | 26 | 0 | 54 | 0.2 | 0.34 | 0.07 | 0.18 |
| 6 | 5 | 12 | 14 | 19 | 0 | 50 | 0.23 | 0.43 | 0.08 | 0.23 |
| 7 | 4 | 7 | 18 | 18 | 0 | 47 | 0.21 | 0.34 | 0.07 | 0.21 |
| 8 | 2 | 12 | 18 | 22 | 0 | 54 | 0.21 | 0.37 | 0.08 | 0.17 |
| 9 | 6 | 11 | 14 | 25 | 0 | 56 | 0.21 | 0.4 | 0.08 | 0.18 |
| 10 | 4 | 11 | 12 | 20 | 0 | 47 | 0.21 | 0.44 | 0.1 | 0.16 |
| 11 | 7 | 11 | 16 | 18 | 0 | 52 | 0.21 | 0.39 | 0.07 | 0.19 |

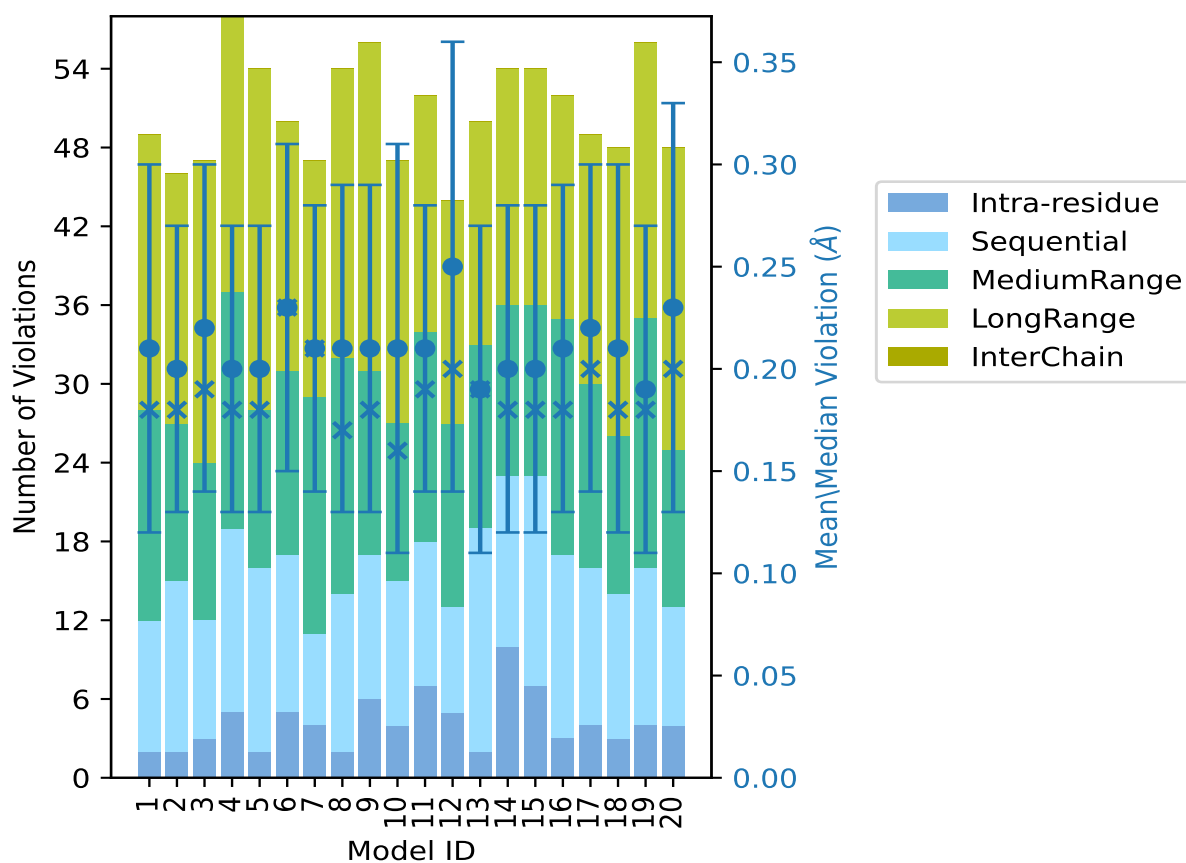
Continued on next page...

Continued from previous page...

| Model ID | Number of violations | | | | | Total | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | | | | | |
| 12 | 5 | 8 | 14 | 17 | 0 | 44 | 0.25 | 0.58 | 0.11 | 0.2 |
| 13 | 2 | 17 | 14 | 17 | 0 | 50 | 0.19 | 0.4 | 0.08 | 0.19 |
| 14 | 10 | 13 | 13 | 18 | 0 | 54 | 0.2 | 0.43 | 0.08 | 0.18 |
| 15 | 7 | 16 | 13 | 18 | 0 | 54 | 0.2 | 0.46 | 0.08 | 0.18 |
| 16 | 3 | 14 | 18 | 17 | 0 | 52 | 0.21 | 0.44 | 0.08 | 0.18 |
| 17 | 4 | 12 | 14 | 19 | 0 | 49 | 0.22 | 0.42 | 0.08 | 0.2 |
| 18 | 3 | 11 | 12 | 22 | 0 | 48 | 0.21 | 0.42 | 0.09 | 0.18 |
| 19 | 4 | 12 | 19 | 21 | 0 | 56 | 0.19 | 0.57 | 0.08 | 0.18 |
| 20 | 4 | 9 | 12 | 23 | 0 | 48 | 0.23 | 0.49 | 0.1 | 0.2 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints, ⁵Inter-chain restraints, ⁶Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model [i](#)



The mean(dot), median(x) and the standard deviation are shown in blue with respect to the y axis on the right

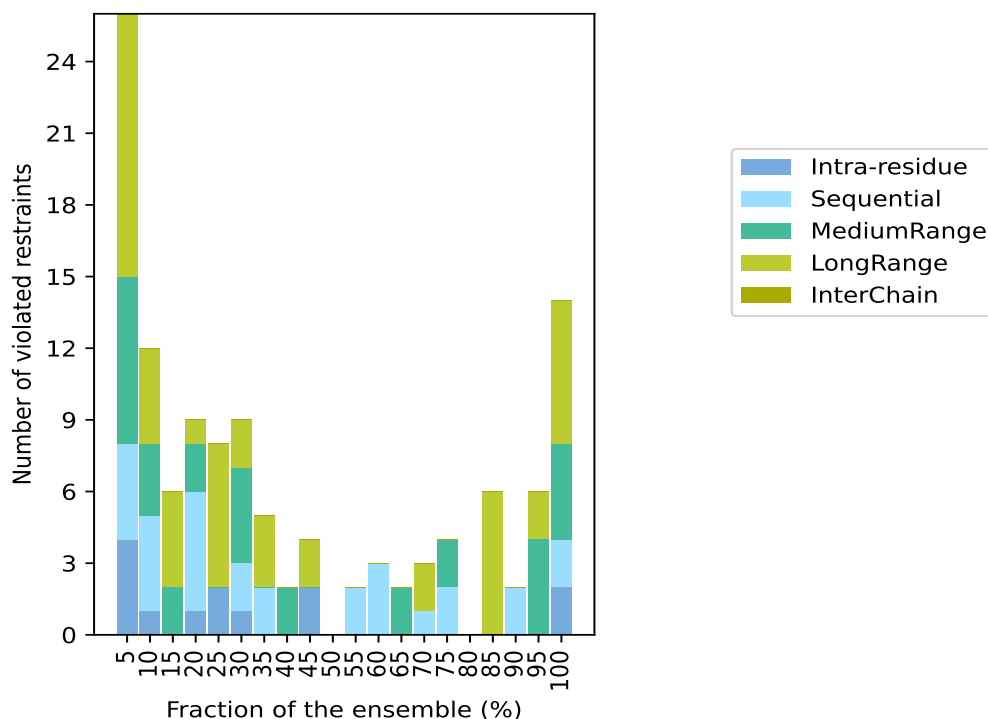
9.3 Distance violation statistics for the ensemble

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 1212(IR:328, SQ:333, MR:239, LR:312, IC:0) restraints are not violated in the ensemble.

| Number of violated restraints | | | | | | Fraction of the ensemble | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | Count ⁶ | % |
| 4 | 4 | 7 | 11 | 0 | 26 | 1 | 5.0 |
| 1 | 4 | 3 | 4 | 0 | 12 | 2 | 10.0 |
| 0 | 0 | 2 | 4 | 0 | 6 | 3 | 15.0 |
| 1 | 5 | 2 | 1 | 0 | 9 | 4 | 20.0 |
| 2 | 0 | 0 | 6 | 0 | 8 | 5 | 25.0 |
| 1 | 2 | 4 | 2 | 0 | 9 | 6 | 30.0 |
| 0 | 2 | 0 | 3 | 0 | 5 | 7 | 35.0 |
| 0 | 0 | 2 | 0 | 0 | 2 | 8 | 40.0 |
| 2 | 0 | 0 | 2 | 0 | 4 | 9 | 45.0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 10 | 50.0 |
| 0 | 2 | 0 | 0 | 0 | 2 | 11 | 55.0 |
| 0 | 3 | 0 | 0 | 0 | 3 | 12 | 60.0 |
| 0 | 0 | 2 | 0 | 0 | 2 | 13 | 65.0 |
| 0 | 1 | 0 | 2 | 0 | 3 | 14 | 70.0 |
| 0 | 2 | 2 | 0 | 0 | 4 | 15 | 75.0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 16 | 80.0 |
| 0 | 0 | 0 | 6 | 0 | 6 | 17 | 85.0 |
| 0 | 2 | 0 | 0 | 0 | 2 | 18 | 90.0 |
| 0 | 0 | 4 | 2 | 0 | 6 | 19 | 95.0 |
| 2 | 2 | 4 | 6 | 0 | 14 | 20 | 100.0 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints, ⁵Inter-chain restraints, ⁶ Number of models with violations

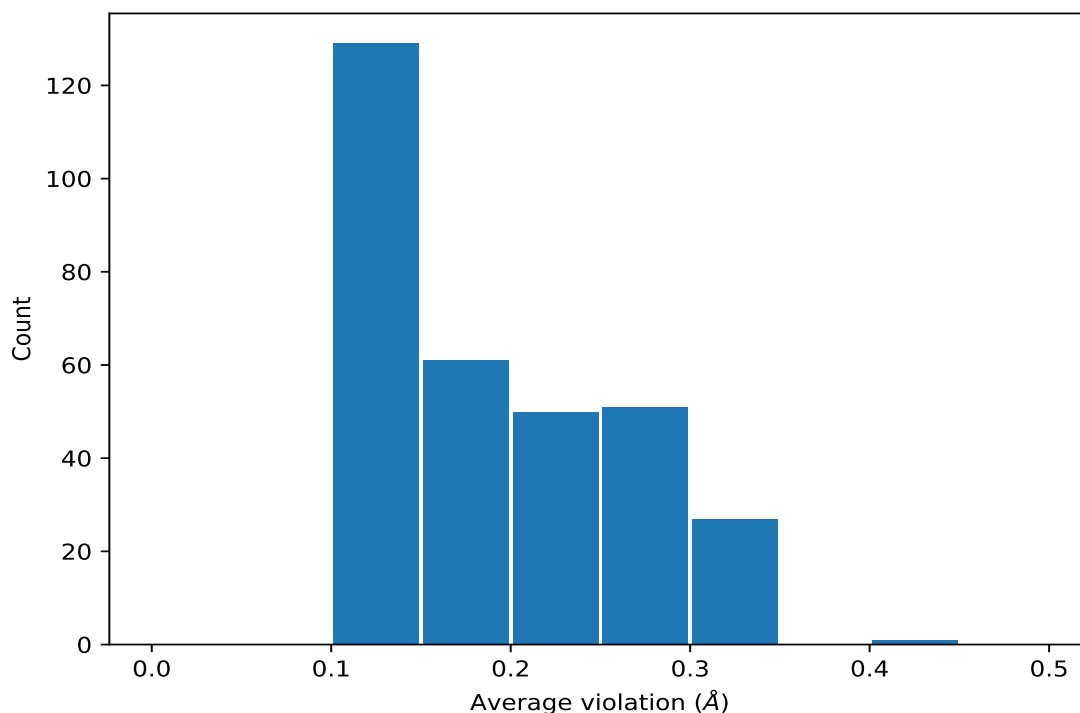
9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



9.4 Most violated distance restraints in the ensemble [i](#)

9.4.1 Histogram : Distribution of mean distance violations [i](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



9.4.2 Table: Most violated distance restraints [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|--------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 20 | 0.35 | 0.04 | 0.36 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 20 | 0.35 | 0.04 | 0.36 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 20 | 0.35 | 0.04 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 20 | 0.33 | 0.06 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 20 | 0.33 | 0.06 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 20 | 0.33 | 0.06 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 20 | 0.33 | 0.06 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 20 | 0.33 | 0.06 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 20 | 0.33 | 0.06 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 20 | 0.33 | 0.06 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 20 | 0.33 | 0.06 | 0.33 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 20 | 0.3 | 0.05 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 20 | 0.29 | 0.03 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 20 | 0.29 | 0.03 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 20 | 0.29 | 0.03 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 20 | 0.29 | 0.03 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 20 | 0.29 | 0.03 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 20 | 0.29 | 0.03 | 0.3 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 20 | 0.24 | 0.04 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 20 | 0.18 | 0.03 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 20 | 0.18 | 0.03 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 20 | 0.18 | 0.03 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 20 | 0.18 | 0.03 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 20 | 0.18 | 0.03 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 20 | 0.18 | 0.03 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 20 | 0.18 | 0.03 | 0.18 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 20 | 0.16 | 0.02 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 20 | 0.16 | 0.02 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 20 | 0.16 | 0.02 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 20 | 0.16 | 0.02 | 0.16 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 19 | 0.28 | 0.06 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 19 | 0.28 | 0.06 | 0.28 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 19 | 0.26 | 0.06 | 0.26 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 19 | 0.26 | 0.06 | 0.26 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 19 | 0.19 | 0.05 | 0.18 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 19 | 0.19 | 0.05 | 0.18 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 18 | 0.21 | 0.06 | 0.2 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 18 | 0.21 | 0.06 | 0.2 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 17 | 0.2 | 0.04 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 17 | 0.2 | 0.04 | 0.18 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 17 | 0.18 | 0.04 | 0.18 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 17 | 0.18 | 0.04 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 17 | 0.17 | 0.04 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 17 | 0.17 | 0.04 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 17 | 0.17 | 0.04 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 17 | 0.17 | 0.04 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 17 | 0.17 | 0.04 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 17 | 0.17 | 0.04 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 17 | 0.17 | 0.04 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 17 | 0.17 | 0.04 | 0.18 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 15 | 0.25 | 0.06 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 15 | 0.25 | 0.06 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 15 | 0.25 | 0.06 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 15 | 0.25 | 0.06 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 15 | 0.25 | 0.06 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 15 | 0.25 | 0.06 | 0.26 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 15 | 0.12 | 0.02 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 15 | 0.12 | 0.02 | 0.12 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 14 | 0.18 | 0.05 | 0.16 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 14 | 0.18 | 0.05 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 14 | 0.18 | 0.05 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 14 | 0.18 | 0.05 | 0.16 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 14 | 0.18 | 0.03 | 0.18 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 13 | 0.14 | 0.02 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 13 | 0.14 | 0.02 | 0.14 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 12 | 0.33 | 0.12 | 0.36 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 12 | 0.15 | 0.03 | 0.15 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 11 | 0.3 | 0.06 | 0.29 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 11 | 0.3 | 0.06 | 0.29 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 9 | 0.24 | 0.13 | 0.19 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 9 | 0.24 | 0.13 | 0.19 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 9 | 0.15 | 0.04 | 0.13 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 9 | 0.15 | 0.04 | 0.13 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 9 | 0.15 | 0.04 | 0.13 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 9 | 0.15 | 0.04 | 0.13 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 9 | 0.15 | 0.04 | 0.13 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 9 | 0.15 | 0.04 | 0.13 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 9 | 0.15 | 0.04 | 0.13 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 9 | 0.15 | 0.04 | 0.13 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 8 | 0.14 | 0.05 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 8 | 0.14 | 0.05 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 8 | 0.14 | 0.05 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 8 | 0.14 | 0.05 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 8 | 0.14 | 0.05 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 8 | 0.14 | 0.05 | 0.12 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 7 | 0.14 | 0.01 | 0.14 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 7 | 0.14 | 0.01 | 0.14 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 7 | 0.14 | 0.02 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 7 | 0.14 | 0.02 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 7 | 0.14 | 0.02 | 0.13 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 7 | 0.14 | 0.02 | 0.13 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 7 | 0.14 | 0.02 | 0.13 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 6 | 0.19 | 0.03 | 0.2 |
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 6 | 0.19 | 0.03 | 0.2 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 6 | 0.19 | 0.04 | 0.2 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 6 | 0.19 | 0.04 | 0.2 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 6 | 0.15 | 0.01 | 0.15 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 6 | 0.14 | 0.05 | 0.12 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 6 | 0.14 | 0.05 | 0.12 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 6 | 0.14 | 0.03 | 0.14 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 6 | 0.14 | 0.03 | 0.14 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 6 | 0.14 | 0.02 | 0.12 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 6 | 0.14 | 0.02 | 0.12 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 5 | 0.2 | 0.02 | 0.21 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 5 | 0.2 | 0.02 | 0.21 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 5 | 0.2 | 0.02 | 0.21 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 5 | 0.2 | 0.02 | 0.21 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 5 | 0.15 | 0.03 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 5 | 0.15 | 0.02 | 0.16 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 5 | 0.15 | 0.02 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 5 | 0.15 | 0.02 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 5 | 0.15 | 0.02 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 5 | 0.15 | 0.02 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 5 | 0.15 | 0.02 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 5 | 0.15 | 0.02 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 5 | 0.15 | 0.02 | 0.16 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 5 | 0.14 | 0.02 | 0.13 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 5 | 0.14 | 0.02 | 0.13 |
| (2,181) | 1:A:34:ARG:HA | 1:A:34:ARG:HD2 | 4 | 0.43 | 0.17 | 0.5 |
| (3,6) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 4 | 0.21 | 0.04 | 0.22 |
| (6,5) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 4 | 0.21 | 0.04 | 0.22 |
| (2,521) | 1:A:34:ARG:HG3 | 1:A:35:GLY:H | 4 | 0.17 | 0.02 | 0.17 |
| (2,628) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 4 | 0.16 | 0.02 | 0.17 |
| (2,628) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 4 | 0.16 | 0.02 | 0.17 |
| (5,566) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 4 | 0.16 | 0.02 | 0.17 |
| (5,566) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 4 | 0.16 | 0.02 | 0.17 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD11 | 4 | 0.15 | 0.03 | 0.16 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD12 | 4 | 0.15 | 0.03 | 0.16 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD13 | 4 | 0.15 | 0.03 | 0.16 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 4 | 0.14 | 0.02 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 4 | 0.14 | 0.02 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 4 | 0.14 | 0.02 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 4 | 0.14 | 0.02 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 4 | 0.14 | 0.02 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 4 | 0.14 | 0.02 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 4 | 0.14 | 0.02 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 4 | 0.14 | 0.02 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 4 | 0.14 | 0.02 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 4 | 0.14 | 0.02 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 4 | 0.14 | 0.02 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 4 | 0.14 | 0.02 | 0.15 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 3 | 0.18 | 0.07 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 3 | 0.18 | 0.07 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 3 | 0.18 | 0.07 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 3 | 0.18 | 0.07 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 3 | 0.18 | 0.07 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 3 | 0.18 | 0.07 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 3 | 0.18 | 0.07 | 0.13 |
| (2,691) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 3 | 0.17 | 0.03 | 0.17 |
| (2,691) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 3 | 0.17 | 0.03 | 0.17 |
| (5,629) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 3 | 0.17 | 0.03 | 0.17 |
| (5,629) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 3 | 0.17 | 0.03 | 0.17 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 3 | 0.12 | 0.0 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 3 | 0.12 | 0.0 | 0.12 |
| (2,182) | 1:A:34:ARG:HA | 1:A:34:ARG:HD3 | 2 | 0.29 | 0.14 | 0.29 |
| (2,49) | 1:A:53:VAL:HG11 | 1:A:55:CYS:HA | 2 | 0.16 | 0.0 | 0.16 |
| (2,49) | 1:A:53:VAL:HG12 | 1:A:55:CYS:HA | 2 | 0.16 | 0.0 | 0.16 |
| (2,49) | 1:A:53:VAL:HG13 | 1:A:55:CYS:HA | 2 | 0.16 | 0.0 | 0.16 |
| (2,341) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (2,341) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (2,341) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (2,455) | 1:A:15:SER:HA | 1:A:25:GLN:HE21 | 2 | 0.13 | 0.01 | 0.13 |
| (2,540) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 2 | 0.13 | 0.0 | 0.13 |
| (2,693) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (2,693) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (5,305) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (5,305) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |

Continued on next page...

Continued from previous page...

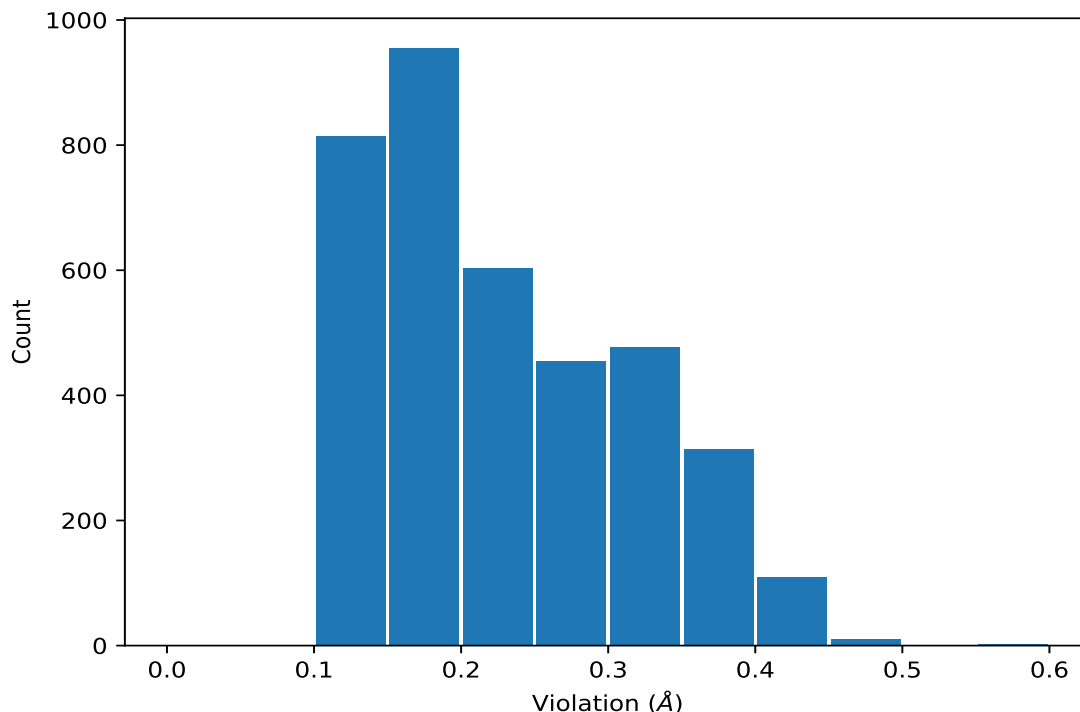
| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|----------------|-----------------|---------------------|----------|---------------------|------------|
| (5,305) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (5,482) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 2 | 0.13 | 0.0 | 0.13 |
| (5,631) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (5,631) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (2,547) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 2 | 0.12 | 0.01 | 0.12 |
| (5,488) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 2 | 0.12 | 0.01 | 0.12 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG21 | 2 | 0.12 | 0.01 | 0.12 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG22 | 2 | 0.12 | 0.01 | 0.12 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG23 | 2 | 0.12 | 0.01 | 0.12 |

¹Number of violated models, ²Standard deviation

9.5 All violated distance restraints [i](#)

9.5.1 Histogram : Distribution of distance violations [i](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



9.5.2 Table : All distance violations [i](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (2,181) | 1:A:34:ARG:HA | 1:A:34:ARG:HD2 | 12 | 0.58 |
| (2,181) | 1:A:34:ARG:HA | 1:A:34:ARG:HD2 | 19 | 0.57 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 20 | 0.49 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 20 | 0.49 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 12 | 0.46 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 12 | 0.46 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 12 | 0.46 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 12 | 0.46 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 12 | 0.46 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 12 | 0.46 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 12 | 0.46 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 12 | 0.46 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 15 | 0.46 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 10 | 0.44 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 16 | 0.44 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 10 | 0.44 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 6 | 0.43 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 12 | 0.43 |
| (2,182) | 1:A:34:ARG:HA | 1:A:34:ARG:HD3 | 14 | 0.43 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 17 | 0.42 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 17 | 0.42 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 17 | 0.42 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 1 | 0.42 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 17 | 0.42 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 17 | 0.42 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 17 | 0.42 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 1 | 0.42 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 1 | 0.42 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 1 | 0.42 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 1 | 0.42 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 18 | 0.42 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 18 | 0.42 |
| (2,181) | 1:A:34:ARG:HA | 1:A:34:ARG:HD2 | 6 | 0.42 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 9 | 0.4 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 9 | 0.4 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 9 | 0.4 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 9 | 0.4 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 15 | 0.4 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 15 | 0.4 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 15 | 0.4 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 15 | 0.4 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 16 | 0.4 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 18 | 0.4 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 9 | 0.4 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 9 | 0.4 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 9 | 0.4 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 9 | 0.4 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 15 | 0.4 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 15 | 0.4 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 15 | 0.4 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 15 | 0.4 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 12 | 0.4 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 12 | 0.4 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 3 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 13 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 16 | 0.4 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 16 | 0.4 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 18 | 0.4 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 16 | 0.39 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 16 | 0.39 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 16 | 0.39 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 4 | 0.39 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 4 | 0.39 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 4 | 0.39 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 4 | 0.39 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 16 | 0.39 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 16 | 0.39 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 16 | 0.39 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 4 | 0.39 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 4 | 0.39 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 4 | 0.39 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 4 | 0.39 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 11 | 0.39 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 11 | 0.39 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 9 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 1 | 0.38 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|-----------------|-----------------|----------|---------------|
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 1 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 9 | 0.38 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 9 | 0.38 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|-----------------|-----------------|----------|---------------|
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 1 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 3 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 12 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 18 | 0.38 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 18 | 0.38 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 12 | 0.37 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 12 | 0.37 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 12 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 9 | 0.37 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 9 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 12 | 0.37 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 12 | 0.37 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 12 | 0.37 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 8 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 9 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 14 | 0.37 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 14 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 20 | 0.37 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 20 | 0.37 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 3 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 3 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 3 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 3 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 6 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 6 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 6 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 6 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 10 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 10 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 10 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 10 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 20 | 0.36 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 20 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 20 | 0.36 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 20 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 8 | 0.36 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 12 | 0.36 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 12 | 0.36 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 12 | 0.36 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 3 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 3 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 3 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 3 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 6 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 6 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 6 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 6 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 10 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 10 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 10 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 10 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 20 | 0.36 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 20 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 20 | 0.36 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 20 | 0.36 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 1 | 0.36 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 8 | 0.36 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 8 | 0.36 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 8 | 0.36 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 12 | 0.36 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 12 | 0.36 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 12 | 0.36 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 17 | 0.35 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|-----------------|-----------------|----------|---------------|
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 17 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 10 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 17 | 0.35 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 17 | 0.35 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 2 | 0.35 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 10 | 0.35 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 10 | 0.35 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 10 | 0.34 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 10 | 0.34 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 10 | 0.34 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 5 | 0.34 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 5 | 0.34 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 5 | 0.34 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 5 | 0.34 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 15 | 0.34 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 15 | 0.34 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 15 | 0.34 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 10 | 0.34 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 10 | 0.34 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 10 | 0.34 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 5 | 0.34 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 5 | 0.34 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 5 | 0.34 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 5 | 0.34 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 17 | 0.34 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 7 | 0.34 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 7 | 0.34 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 15 | 0.34 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 15 | 0.34 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 15 | 0.34 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 20 | 0.33 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 20 | 0.33 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 20 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 1 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 1 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 1 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 1 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 13 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 13 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 13 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 13 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 19 | 0.33 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 19 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 19 | 0.33 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 19 | 0.33 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 10 | 0.33 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 10 | 0.33 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 10 | 0.33 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 12 | 0.33 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 12 | 0.33 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 12 | 0.33 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 20 | 0.33 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 20 | 0.33 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 20 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 1 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 1 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 1 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 1 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 13 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 13 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 13 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 13 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 19 | 0.33 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 19 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 19 | 0.33 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 19 | 0.33 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 5 | 0.33 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 5 | 0.33 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 10 | 0.33 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 10 | 0.33 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 10 | 0.33 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 12 | 0.33 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 12 | 0.33 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 12 | 0.33 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 5 | 0.32 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 5 | 0.32 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 5 | 0.32 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 11 | 0.32 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 11 | 0.32 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 11 | 0.32 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 11 | 0.32 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 15 | 0.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 15 | 0.32 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 2 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 2 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 2 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 13 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 13 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 13 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 17 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 17 | 0.32 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 17 | 0.32 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 20 | 0.32 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 20 | 0.32 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 20 | 0.32 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 5 | 0.32 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 5 | 0.32 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 5 | 0.32 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 11 | 0.32 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 11 | 0.32 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 11 | 0.32 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 11 | 0.32 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 20 | 0.32 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 15 | 0.32 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 15 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 2 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 2 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 2 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 13 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 13 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 13 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 17 | 0.32 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 17 | 0.32 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 17 | 0.32 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 20 | 0.32 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 20 | 0.32 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 20 | 0.32 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 1 | 0.31 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 1 | 0.31 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 1 | 0.31 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 8 | 0.31 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 8 | 0.31 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 8 | 0.31 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 1 | 0.31 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 1 | 0.31 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 1 | 0.31 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 7 | 0.31 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 7 | 0.31 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 7 | 0.31 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 1 | 0.31 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 1 | 0.31 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 1 | 0.31 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 8 | 0.31 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 8 | 0.31 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 8 | 0.31 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 6 | 0.31 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 6 | 0.31 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 6 | 0.31 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 19 | 0.31 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 19 | 0.31 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 1 | 0.31 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 1 | 0.31 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 1 | 0.31 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 7 | 0.31 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 7 | 0.31 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 7 | 0.31 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 7 | 0.3 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 7 | 0.3 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 7 | 0.3 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 15 | 0.3 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 15 | 0.3 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 15 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 8 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 8 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 8 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 8 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 14 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 14 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 14 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 14 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 17 | 0.3 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 17 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 17 | 0.3 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 17 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 7 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 3 | 0.3 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 3 | 0.3 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 3 | 0.3 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 11 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 11 | 0.3 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 11 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 9 | 0.3 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 20 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 3 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 3 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 3 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 6 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 6 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 6 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 8 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 8 | 0.3 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 8 | 0.3 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 8 | 0.3 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 8 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 8 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 7 | 0.3 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 7 | 0.3 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 7 | 0.3 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 15 | 0.3 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 15 | 0.3 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 15 | 0.3 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 8 | 0.3 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 8 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 8 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 8 | 0.3 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 14 | 0.3 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 14 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 14 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 14 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 17 | 0.3 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 17 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 17 | 0.3 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 17 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 7 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 11 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 18 | 0.3 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 18 | 0.3 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 2 | 0.3 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 3 | 0.3 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 3 | 0.3 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 3 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 3 | 0.3 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 3 | 0.3 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 11 | 0.3 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 11 | 0.3 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 11 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 4 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 5 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 6 | 0.3 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 6 | 0.3 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 9 | 0.3 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 20 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 3 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 3 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 3 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 6 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 6 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 6 | 0.3 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 8 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 8 | 0.3 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 8 | 0.3 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 8 | 0.3 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 8 | 0.3 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 8 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 6 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 7 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 17 | 0.3 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 17 | 0.3 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 13 | 0.29 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 13 | 0.29 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 13 | 0.29 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 18 | 0.29 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 18 | 0.29 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 18 | 0.29 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 2 | 0.29 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 2 | 0.29 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 2 | 0.29 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 2 | 0.29 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 16 | 0.29 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 6 | 0.29 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 5 | 0.29 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 20 | 0.29 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 20 | 0.29 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 20 | 0.29 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 2 | 0.29 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 2 | 0.29 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 2 | 0.29 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 13 | 0.29 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 13 | 0.29 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 13 | 0.29 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 18 | 0.29 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 18 | 0.29 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 18 | 0.29 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 2 | 0.29 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 2 | 0.29 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 2 | 0.29 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 2 | 0.29 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 16 | 0.29 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 16 | 0.29 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 16 | 0.29 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 6 | 0.29 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 6 | 0.29 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 6 | 0.29 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 7 | 0.29 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 14 | 0.29 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 5 | 0.29 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 20 | 0.29 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 20 | 0.29 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 20 | 0.29 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 2 | 0.29 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 2 | 0.29 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 2 | 0.29 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 14 | 0.28 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 14 | 0.28 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 14 | 0.28 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 19 | 0.28 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 19 | 0.28 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 19 | 0.28 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 10 | 0.28 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 10 | 0.28 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 14 | 0.28 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 14 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 8 | 0.28 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 8 | 0.28 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 18 | 0.28 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 3 | 0.28 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 4 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 9 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 9 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 9 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 16 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 16 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 16 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 18 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 18 | 0.28 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 18 | 0.28 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 4 | 0.28 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 4 | 0.28 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 4 | 0.28 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 14 | 0.28 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 14 | 0.28 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 14 | 0.28 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 19 | 0.28 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 19 | 0.28 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 19 | 0.28 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 10 | 0.28 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 10 | 0.28 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 14 | 0.28 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 14 | 0.28 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 8 | 0.28 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 8 | 0.28 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 8 | 0.28 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 4 | 0.28 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 4 | 0.28 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 18 | 0.28 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 3 | 0.28 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 4 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 9 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 9 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 9 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 16 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 16 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 16 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 18 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 18 | 0.28 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 18 | 0.28 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 4 | 0.28 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 4 | 0.28 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 4 | 0.28 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 9 | 0.27 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 9 | 0.27 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 9 | 0.27 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 9 | 0.27 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 9 | 0.27 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 9 | 0.27 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 4 | 0.27 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 4 | 0.27 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 4 | 0.27 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 13 | 0.27 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 13 | 0.27 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 13 | 0.27 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 17 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 11 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 11 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 11 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 14 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 14 | 0.27 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 14 | 0.27 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 4 | 0.27 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 4 | 0.27 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 4 | 0.27 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 20 | 0.27 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 20 | 0.27 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 13 | 0.27 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 13 | 0.27 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 13 | 0.27 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 13 | 0.27 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 17 | 0.27 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 11 | 0.27 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 11 | 0.27 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 11 | 0.27 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 14 | 0.27 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 14 | 0.27 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 14 | 0.27 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 12 | 0.27 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 12 | 0.27 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 9 | 0.27 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 9 | 0.27 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 9 | 0.27 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 9 | 0.27 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 9 | 0.27 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 9 | 0.27 |
| (6,5) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 8 | 0.26 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 6 | 0.26 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 6 | 0.26 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 6 | 0.26 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 5 | 0.26 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 7 | 0.26 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 7 | 0.26 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 7 | 0.26 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 7 | 0.26 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 14 | 0.26 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 16 | 0.26 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 5 | 0.26 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 5 | 0.26 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 5 | 0.26 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 7 | 0.26 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 7 | 0.26 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 7 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 6 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 6 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 6 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 11 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 11 | 0.26 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 11 | 0.26 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (3,6) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 8 | 0.26 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 6 | 0.26 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 6 | 0.26 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 6 | 0.26 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 5 | 0.26 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 6 | 0.26 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 8 | 0.26 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 9 | 0.26 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 7 | 0.26 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 7 | 0.26 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 7 | 0.26 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 7 | 0.26 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 14 | 0.26 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 16 | 0.26 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 5 | 0.26 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 5 | 0.26 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 5 | 0.26 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 7 | 0.26 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 7 | 0.26 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 7 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 6 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 6 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 6 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 11 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 11 | 0.26 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 11 | 0.26 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 20 | 0.26 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 20 | 0.26 |
| (6,5) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 14 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 2 | 0.25 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 2 | 0.25 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 2 | 0.25 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 3 | 0.25 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 3 | 0.25 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 3 | 0.25 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 18 | 0.25 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 18 | 0.25 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 18 | 0.25 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 18 | 0.25 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 18 | 0.25 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 18 | 0.25 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 7 | 0.25 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 7 | 0.25 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 7 | 0.25 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 7 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 4 | 0.25 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 6 | 0.25 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 11 | 0.25 |
| (5,258) | 1:A:11:LEU:H | 1:A:11:LEU:HG | 14 | 0.25 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 2 | 0.25 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 15 | 0.25 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 4 | 0.25 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 4 | 0.25 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 4 | 0.25 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 3 | 0.25 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 3 | 0.25 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 3 | 0.25 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (3,6) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 14 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 8 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 18 | 0.25 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 18 | 0.25 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 2 | 0.25 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 2 | 0.25 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 2 | 0.25 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 3 | 0.25 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 3 | 0.25 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 3 | 0.25 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 18 | 0.25 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 18 | 0.25 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 18 | 0.25 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 18 | 0.25 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 18 | 0.25 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 18 | 0.25 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 3 | 0.25 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 4 | 0.25 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 4 | 0.25 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 4 | 0.25 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 7 | 0.25 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 7 | 0.25 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 7 | 0.25 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 7 | 0.25 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 6 | 0.25 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 19 | 0.25 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 11 | 0.25 |
| (2,289) | 1:A:11:LEU:H | 1:A:11:LEU:HG | 14 | 0.25 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 2 | 0.25 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 15 | 0.25 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 4 | 0.25 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 4 | 0.25 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 4 | 0.25 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 3 | 0.25 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 3 | 0.25 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 3 | 0.25 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 4 | 0.24 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 19 | 0.24 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 11 | 0.24 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 11 | 0.24 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 11 | 0.24 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 16 | 0.24 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 16 | 0.24 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 16 | 0.24 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 16 | 0.24 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 17 | 0.24 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 17 | 0.24 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 17 | 0.24 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 17 | 0.24 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 3 | 0.24 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 2 | 0.24 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 15 | 0.24 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 17 | 0.24 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (5,34) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 17 | 0.24 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 1 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 3 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 4 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 19 | 0.24 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 19 | 0.24 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 11 | 0.24 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 11 | 0.24 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 11 | 0.24 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 16 | 0.24 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 16 | 0.24 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 16 | 0.24 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 16 | 0.24 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 13 | 0.24 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 13 | 0.24 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 17 | 0.24 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 17 | 0.24 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 17 | 0.24 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 17 | 0.24 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 19 | 0.24 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 19 | 0.24 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 5 | 0.24 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 3 | 0.24 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 2 | 0.24 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 15 | 0.24 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG21 | 1:A:28:ILE:HG23 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG22 | 1:A:28:ILE:HG23 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG21 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG22 | 17 | 0.24 |
| (2,35) | 1:A:23:VAL:HG23 | 1:A:28:ILE:HG23 | 17 | 0.24 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 1 | 0.24 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 1 | 0.24 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 1 | 0.24 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 18 | 0.23 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 18 | 0.23 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 18 | 0.23 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 18 | 0.23 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 12 | 0.23 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 12 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 16 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 17 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 17 | 0.23 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 17 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 17 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 17 | 0.23 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 17 | 0.23 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 16 | 0.23 |
| (5,511) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 16 | 0.23 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,511) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 16 | 0.23 |
| (5,511) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 4 | 0.23 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 4 | 0.23 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 14 | 0.23 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 20 | 0.23 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 1 | 0.23 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 6 | 0.23 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 19 | 0.23 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 9 | 0.23 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 9 | 0.23 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 9 | 0.23 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 9 | 0.23 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 1 | 0.23 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 1 | 0.23 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 1 | 0.23 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 18 | 0.23 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 18 | 0.23 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 18 | 0.23 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 18 | 0.23 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 12 | 0.23 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 12 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 16 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 17 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 17 | 0.23 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 17 | 0.23 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 17 | 0.23 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 17 | 0.23 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 17 | 0.23 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 15 | 0.23 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 15 | 0.23 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 8 | 0.23 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE1 | 16 | 0.23 |
| (2,570) | 1:A:47:LEU:HD21 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE1 | 16 | 0.23 |
| (2,570) | 1:A:47:LEU:HD22 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE1 | 16 | 0.23 |
| (2,570) | 1:A:47:LEU:HD23 | 1:A:48:TYR:HE2 | 16 | 0.23 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 4 | 0.23 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 4 | 0.23 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 14 | 0.23 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 20 | 0.23 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 10 | 0.23 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 12 | 0.23 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 15 | 0.23 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 1 | 0.23 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 6 | 0.23 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 19 | 0.23 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 9 | 0.23 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 9 | 0.23 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 9 | 0.23 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 9 | 0.23 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 1 | 0.23 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 1 | 0.23 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 1 | 0.23 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (5,66) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 9 | 0.22 |
| (5,66) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 9 | 0.22 |
| (5,66) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 9 | 0.22 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 15 | 0.22 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 15 | 0.22 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 13 | 0.22 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 13 | 0.22 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 13 | 0.22 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 13 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 7 | 0.22 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 1 | 0.22 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 1 | 0.22 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 1 | 0.22 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 11 | 0.22 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 15 | 0.22 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 13 | 0.22 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 19 | 0.22 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 19 | 0.22 |
| (5,137) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 19 | 0.22 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 19 | 0.22 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 19 | 0.22 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 19 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 16 | 0.22 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 6 | 0.22 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 6 | 0.22 |
| (2,73) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HG | 9 | 0.22 |
| (2,73) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HG | 9 | 0.22 |
| (2,73) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HG | 9 | 0.22 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 15 | 0.22 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 15 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 1 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 5 | 0.22 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 5 | 0.22 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 13 | 0.22 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 13 | 0.22 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 13 | 0.22 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 13 | 0.22 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 2 | 0.22 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 17 | 0.22 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 7 | 0.22 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 1 | 0.22 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 1 | 0.22 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 1 | 0.22 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 2 | 0.22 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 18 | 0.22 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 11 | 0.22 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 15 | 0.22 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 13 | 0.22 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD11 | 19 | 0.22 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD12 | 19 | 0.22 |
| (2,150) | 1:A:4:ILE:HB | 1:A:45:ILE:HD13 | 19 | 0.22 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 19 | 0.22 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 19 | 0.22 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 19 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 10 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 14 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 16 | 0.22 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 16 | 0.22 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 16 | 0.22 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 7 | 0.21 |
| (5,628) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 7 | 0.21 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 7 | 0.21 |
| (5,628) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 7 | 0.21 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 16 | 0.21 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 16 | 0.21 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 17 | 0.21 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 17 | 0.21 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 11 | 0.21 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 11 | 0.21 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 2 | 0.21 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 6 | 0.21 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 6 | 0.21 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 11 | 0.21 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 11 | 0.21 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 13 | 0.21 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 9 | 0.21 |
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 7 | 0.21 |
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 17 | 0.21 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 19 | 0.21 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 5 | 0.21 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 5 | 0.21 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD2 | 7 | 0.21 |
| (2,690) | 1:A:59:ARG:HB2 | 1:A:60:PRO:HD3 | 7 | 0.21 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD2 | 7 | 0.21 |
| (2,690) | 1:A:59:ARG:HB3 | 1:A:60:PRO:HD3 | 7 | 0.21 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 16 | 0.21 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 16 | 0.21 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 17 | 0.21 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 17 | 0.21 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 11 | 0.21 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 11 | 0.21 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 19 | 0.21 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 19 | 0.21 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 8 | 0.21 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 20 | 0.21 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 2 | 0.21 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 6 | 0.21 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 6 | 0.21 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 11 | 0.21 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 11 | 0.21 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 13 | 0.21 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 13 | 0.21 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 9 | 0.21 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 7 | 0.21 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 17 | 0.21 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 19 | 0.21 |
| (5,629) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 19 | 0.2 |
| (5,629) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 19 | 0.2 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 11 | 0.2 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 11 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 1 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 12 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 12 | 0.2 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 12 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 12 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 12 | 0.2 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 12 | 0.2 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 4 | 0.2 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 4 | 0.2 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 4 | 0.2 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 4 | 0.2 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 12 | 0.2 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 13 | 0.2 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 20 | 0.2 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 12 | 0.2 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 5 | 0.2 |
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 5 | 0.2 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 5 | 0.2 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 9 | 0.2 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 17 | 0.2 |
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 8 | 0.2 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 5 | 0.2 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 5 | 0.2 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 5 | 0.2 |
| (2,691) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 19 | 0.2 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,691) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 19 | 0.2 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 11 | 0.2 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 11 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 1 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 12 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 12 | 0.2 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 12 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 12 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 12 | 0.2 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 12 | 0.2 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 4 | 0.2 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 4 | 0.2 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 4 | 0.2 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 4 | 0.2 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 11 | 0.2 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 7 | 0.2 |
| (2,521) | 1:A:34:ARG:HG3 | 1:A:35:GLY:H | 12 | 0.2 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 12 | 0.2 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 13 | 0.2 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 20 | 0.2 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 12 | 0.2 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 4 | 0.2 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 16 | 0.2 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 5 | 0.2 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 5 | 0.2 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 5 | 0.2 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 9 | 0.2 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 17 | 0.2 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 8 | 0.2 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 5 | 0.2 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 5 | 0.2 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 5 | 0.2 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 13 | 0.19 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 3 | 0.19 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 3 | 0.19 |
| (5,566) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 13 | 0.19 |
| (5,566) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 13 | 0.19 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 11 | 0.19 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 11 | 0.19 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 11 | 0.19 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 11 | 0.19 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 11 | 0.19 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 11 | 0.19 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 11 | 0.19 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 11 | 0.19 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 11 | 0.19 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 11 | 0.19 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 15 | 0.19 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 15 | 0.19 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 15 | 0.19 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 15 | 0.19 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 9 | 0.19 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 9 | 0.19 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 10 | 0.19 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 11 | 0.19 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 6 | 0.19 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 6 | 0.19 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 6 | 0.19 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 15 | 0.19 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 15 | 0.19 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 15 | 0.19 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 11 | 0.19 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 17 | 0.19 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 18 | 0.19 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 18 | 0.19 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 18 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 13 | 0.19 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 13 | 0.19 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 3 | 0.19 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 3 | 0.19 |
| (2,628) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 13 | 0.19 |
| (2,628) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 13 | 0.19 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 11 | 0.19 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 11 | 0.19 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 11 | 0.19 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 11 | 0.19 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 11 | 0.19 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 11 | 0.19 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 11 | 0.19 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 11 | 0.19 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 11 | 0.19 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 11 | 0.19 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 15 | 0.19 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 15 | 0.19 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 15 | 0.19 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 15 | 0.19 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 9 | 0.19 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 9 | 0.19 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 10 | 0.19 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 5 | 0.19 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 11 | 0.19 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 6 | 0.19 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 6 | 0.19 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 6 | 0.19 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 15 | 0.19 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 15 | 0.19 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 15 | 0.19 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 11 | 0.19 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 17 | 0.19 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 18 | 0.19 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 18 | 0.19 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 18 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 4 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 15 | 0.19 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 15 | 0.19 |
| (6,5) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 4 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 9 | 0.18 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 9 | 0.18 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 9 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 15 | 0.18 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 15 | 0.18 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 9 | 0.18 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 9 | 0.18 |
| (5,566) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 15 | 0.18 |
| (5,566) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 15 | 0.18 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 4 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 6 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 13 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 14 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 14 | 0.18 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 14 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 14 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 14 | 0.18 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 14 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 5 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 5 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 5 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 5 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 14 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 14 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 14 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 14 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 16 | 0.18 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 16 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 16 | 0.18 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 16 | 0.18 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 19 | 0.18 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 4 | 0.18 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 9 | 0.18 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 17 | 0.18 |
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 16 | 0.18 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 2 | 0.18 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 2 | 0.18 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 2 | 0.18 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 4 | 0.18 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 4 | 0.18 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 4 | 0.18 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 18 | 0.18 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 18 | 0.18 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 18 | 0.18 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 18 | 0.18 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 19 | 0.18 |
| (3,6) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 4 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 1 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 9 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 12 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 12 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 16 | 0.18 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 16 | 0.18 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 9 | 0.18 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 9 | 0.18 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 9 | 0.18 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 9 | 0.18 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 15 | 0.18 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 15 | 0.18 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 9 | 0.18 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 9 | 0.18 |
| (2,628) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 15 | 0.18 |
| (2,628) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 15 | 0.18 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 9 | 0.18 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 9 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 4 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 6 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 6 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 6 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 6 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 6 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 6 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 13 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 14 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 14 | 0.18 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 14 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 14 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 14 | 0.18 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 14 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 5 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 5 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 5 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 5 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 14 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 14 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 14 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 14 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 16 | 0.18 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 16 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 16 | 0.18 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 16 | 0.18 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 1 | 0.18 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 16 | 0.18 |
| (2,521) | 1:A:34:ARG:HG3 | 1:A:35:GLY:H | 6 | 0.18 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 19 | 0.18 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 4 | 0.18 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 9 | 0.18 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 17 | 0.18 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 16 | 0.18 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 2 | 0.18 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 2 | 0.18 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 2 | 0.18 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 4 | 0.18 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 4 | 0.18 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 4 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD11 | 12 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD12 | 12 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD13 | 12 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD11 | 17 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD12 | 17 | 0.18 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD13 | 17 | 0.18 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 18 | 0.18 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 18 | 0.18 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 18 | 0.18 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 18 | 0.18 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 19 | 0.18 |
| (5,629) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 9 | 0.17 |
| (5,629) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 9 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 9 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 9 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 10 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 10 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 18 | 0.17 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 18 | 0.17 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 2 | 0.17 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 2 | 0.17 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 5 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 7 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 8 | 0.17 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 8 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 8 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 8 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 8 | 0.17 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 8 | 0.17 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 3 | 0.17 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 3 | 0.17 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 3 | 0.17 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 3 | 0.17 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 11 | 0.17 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 16 | 0.17 |
| (5,408) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 14 | 0.17 |
| (5,408) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 14 | 0.17 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 1 | 0.17 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 8 | 0.17 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 3 | 0.17 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 3 | 0.17 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 3 | 0.17 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 3 | 0.17 |
| (5,133) | 1:A:3:ALA:HB1 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (5,133) | 1:A:3:ALA:HB1 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (5,133) | 1:A:3:ALA:HB2 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (5,133) | 1:A:3:ALA:HB2 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (5,133) | 1:A:3:ALA:HB3 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (5,133) | 1:A:3:ALA:HB3 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 9 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (2,691) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 9 | 0.17 |
| (2,691) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 9 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 9 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 9 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 10 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 10 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 18 | 0.17 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 18 | 0.17 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 2 | 0.17 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 2 | 0.17 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 1 | 0.17 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 1 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 5 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 7 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 7 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 7 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 7 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 7 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 7 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 8 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 8 | 0.17 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 8 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 8 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 8 | 0.17 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 8 | 0.17 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 3 | 0.17 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 3 | 0.17 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 3 | 0.17 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 3 | 0.17 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 18 | 0.17 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 11 | 0.17 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 16 | 0.17 |
| (2,451) | 1:A:32:ARG:HB2 | 1:A:32:ARG:HE | 14 | 0.17 |
| (2,451) | 1:A:32:ARG:HB3 | 1:A:32:ARG:HE | 14 | 0.17 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 1 | 0.17 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 8 | 0.17 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 20 | 0.17 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 20 | 0.17 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 20 | 0.17 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 3 | 0.17 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 3 | 0.17 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 3 | 0.17 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 3 | 0.17 |
| (2,146) | 1:A:3:ALA:HB1 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (2,146) | 1:A:3:ALA:HB1 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (2,146) | 1:A:3:ALA:HB2 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (2,146) | 1:A:3:ALA:HB2 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (2,146) | 1:A:3:ALA:HB3 | 1:A:56:ARG:HD2 | 15 | 0.17 |
| (2,146) | 1:A:3:ALA:HB3 | 1:A:56:ARG:HD3 | 15 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 5 | 0.17 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 5 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 9 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 11 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 18 | 0.17 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 18 | 0.17 |
| (6,5) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 2 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 17 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 20 | 0.16 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 5 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 5 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 6 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 6 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 8 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 8 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 14 | 0.16 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 14 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 4 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 4 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 16 | 0.16 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 16 | 0.16 |
| (5,566) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 11 | 0.16 |
| (5,566) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 11 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 3 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 15 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 15 | 0.16 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 15 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 15 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 15 | 0.16 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 15 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 6 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 6 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 6 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 16 | 0.16 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 16 | 0.16 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 16 | 0.16 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 13 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 13 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 13 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 13 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 19 | 0.16 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 19 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 19 | 0.16 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 19 | 0.16 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (5,53) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 20 | 0.16 |
| (5,42) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (5,42) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (5,42) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 12 | 0.16 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 7 | 0.16 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 8 | 0.16 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 10 | 0.16 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 17 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 17 | 0.16 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 17 | 0.16 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 12 | 0.16 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 12 | 0.16 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 12 | 0.16 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 16 | 0.16 |
| (3,6) | 1:A:24:ASN:H | 1:A:25:GLN:HE22 | 2 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 10 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 17 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 20 | 0.16 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 20 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 20 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 5 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 5 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 6 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 6 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 8 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 8 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 14 | 0.16 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 14 | 0.16 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 4 | 0.16 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 4 | 0.16 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 16 | 0.16 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 16 | 0.16 |
| (2,628) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 11 | 0.16 |
| (2,628) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 11 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 3 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 15 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 15 | 0.16 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 15 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 15 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 15 | 0.16 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 15 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 6 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 8 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 16 | 0.16 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 16 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 16 | 0.16 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 16 | 0.16 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 13 | 0.16 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 13 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 13 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 13 | 0.16 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 19 | 0.16 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 19 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 19 | 0.16 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 19 | 0.16 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB1 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB2 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD21 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD22 | 2 | 0.16 |
| (2,60) | 1:A:7:ALA:HB3 | 1:A:11:LEU:HD23 | 2 | 0.16 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 20 | 0.16 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 19 | 0.16 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 4 | 0.16 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 10 | 0.16 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 15 | 0.16 |
| (2,521) | 1:A:34:ARG:HG3 | 1:A:35:GLY:H | 14 | 0.16 |
| (2,49) | 1:A:53:VAL:HG11 | 1:A:55:CYS:HA | 14 | 0.16 |
| (2,49) | 1:A:53:VAL:HG12 | 1:A:55:CYS:HA | 14 | 0.16 |
| (2,49) | 1:A:53:VAL:HG13 | 1:A:55:CYS:HA | 14 | 0.16 |
| (2,49) | 1:A:53:VAL:HG11 | 1:A:55:CYS:HA | 15 | 0.16 |
| (2,49) | 1:A:53:VAL:HG12 | 1:A:55:CYS:HA | 15 | 0.16 |
| (2,49) | 1:A:53:VAL:HG13 | 1:A:55:CYS:HA | 15 | 0.16 |
| (2,44) | 1:A:23:VAL:HG11 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (2,44) | 1:A:23:VAL:HG12 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (2,44) | 1:A:23:VAL:HG13 | 1:A:31:TRP:HE3 | 17 | 0.16 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 12 | 0.16 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 7 | 0.16 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 8 | 0.16 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 10 | 0.16 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 17 | 0.16 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 17 | 0.16 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 17 | 0.16 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 12 | 0.16 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 12 | 0.16 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 12 | 0.16 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 16 | 0.16 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 16 | 0.16 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 16 | 0.16 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 2 | 0.16 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 2 | 0.16 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 16 | 0.16 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 4 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 10 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 10 | 0.15 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 10 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 10 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 10 | 0.15 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 10 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 4 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 4 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 7 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 7 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 19 | 0.15 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 19 | 0.15 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 17 | 0.15 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 17 | 0.15 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 20 | 0.15 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 20 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 9 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 9 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 9 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 9 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 9 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 9 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 10 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 19 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 19 | 0.15 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 19 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 19 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 19 | 0.15 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 19 | 0.15 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 19 | 0.15 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 19 | 0.15 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 19 | 0.15 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 19 | 0.15 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 14 | 0.15 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 19 | 0.15 |
| (5,476) | 1:A:2:ASN:HB3 | 1:A:3:ALA:H | 14 | 0.15 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 9 | 0.15 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 10 | 0.15 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 17 | 0.15 |
| (5,366) | 1:A:30:GLN:H | 1:A:32:ARG:HB2 | 11 | 0.15 |
| (5,366) | 1:A:30:GLN:H | 1:A:32:ARG:HB3 | 11 | 0.15 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 3 | 0.15 |
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 3 | 0.15 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 3 | 0.15 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 12 | 0.15 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 14 | 0.15 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 14 | 0.15 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 14 | 0.15 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 19 | 0.15 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 19 | 0.15 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 19 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 20 | 0.15 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 20 | 0.15 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 20 | 0.15 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 8 | 0.15 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 8 | 0.15 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 8 | 0.15 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 8 | 0.15 |
| (5,125) | 1:A:4:ILE:HD11 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (5,125) | 1:A:4:ILE:HD12 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (5,125) | 1:A:4:ILE:HD13 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 4 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 10 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 10 | 0.15 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 10 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 10 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 10 | 0.15 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 10 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 4 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 4 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 7 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 7 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 19 | 0.15 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 19 | 0.15 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 17 | 0.15 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 17 | 0.15 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 20 | 0.15 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 20 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 9 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 9 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 9 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 9 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 9 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 9 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 10 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 19 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 19 | 0.15 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 19 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 19 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 19 | 0.15 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 19 | 0.15 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 5 | 0.15 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 5 | 0.15 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 19 | 0.15 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 19 | 0.15 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 19 | 0.15 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 19 | 0.15 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 14 | 0.15 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 19 | 0.15 |
| (2,533) | 1:A:2:ASN:HB3 | 1:A:3:ALA:H | 14 | 0.15 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 4 | 0.15 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 14 | 0.15 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 15 | 0.15 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 16 | 0.15 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 9 | 0.15 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 10 | 0.15 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 17 | 0.15 |
| (2,407) | 1:A:30:GLN:H | 1:A:32:ARG:HB2 | 11 | 0.15 |
| (2,407) | 1:A:30:GLN:H | 1:A:32:ARG:HB3 | 11 | 0.15 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 3 | 0.15 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 3 | 0.15 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 3 | 0.15 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 12 | 0.15 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 14 | 0.15 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 14 | 0.15 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 14 | 0.15 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 19 | 0.15 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 19 | 0.15 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 19 | 0.15 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 20 | 0.15 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 20 | 0.15 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 20 | 0.15 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 4 | 0.15 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 4 | 0.15 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 4 | 0.15 |
| (2,181) | 1:A:34:ARG:HA | 1:A:34:ARG:HD2 | 3 | 0.15 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 8 | 0.15 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 8 | 0.15 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 8 | 0.15 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 8 | 0.15 |
| (2,138) | 1:A:4:ILE:HD11 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (2,138) | 1:A:4:ILE:HD12 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (2,138) | 1:A:4:ILE:HD13 | 1:A:31:TRP:HE3 | 3 | 0.15 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 19 | 0.15 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 19 | 0.15 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 7 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (5,75) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 7 | 0.14 |
| (5,631) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 16 | 0.14 |
| (5,631) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 16 | 0.14 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 16 | 0.14 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 8 | 0.14 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 8 | 0.14 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 8 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 1 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 1 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 2 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 2 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 12 | 0.14 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 12 | 0.14 |
| (5,580) | 1:A:32:ARG:HG2 | 1:A:35:GLY:H | 11 | 0.14 |
| (5,580) | 1:A:32:ARG:HG3 | 1:A:35:GLY:H | 11 | 0.14 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 2 | 0.14 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 20 | 0.14 |
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 20 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,554) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 20 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 20 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 20 | 0.14 |
| (5,554) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 20 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 14 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 14 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 14 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 1 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 1 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 1 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 1 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 12 | 0.14 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 12 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 12 | 0.14 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 12 | 0.14 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 4 | 0.14 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 10 | 0.14 |
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 17 | 0.14 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 5 | 0.14 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 7 | 0.14 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 13 | 0.14 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 16 | 0.14 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 8 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 8 | 0.14 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 8 | 0.14 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 9 | 0.14 |
| (5,305) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 20 | 0.14 |
| (5,305) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 20 | 0.14 |
| (5,305) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 20 | 0.14 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 19 | 0.14 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 14 | 0.14 |
| (5,297) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 15 | 0.14 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 17 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 2 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD11 | 1:A:45:ILE:HG23 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD12 | 1:A:45:ILE:HG23 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG21 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG22 | 7 | 0.14 |
| (2,82) | 1:A:21:LEU:HD13 | 1:A:45:ILE:HG23 | 7 | 0.14 |
| (2,693) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 16 | 0.14 |
| (2,693) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 16 | 0.14 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 16 | 0.14 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 8 | 0.14 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 8 | 0.14 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 8 | 0.14 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 8 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 1 | 0.14 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 1 | 0.14 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 2 | 0.14 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 2 | 0.14 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 12 | 0.14 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 12 | 0.14 |
| (2,642) | 1:A:32:ARG:HG2 | 1:A:35:GLY:H | 11 | 0.14 |
| (2,642) | 1:A:32:ARG:HG3 | 1:A:35:GLY:H | 11 | 0.14 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 2 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD11 | 20 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD12 | 20 | 0.14 |
| (2,615) | 1:A:17:LEU:HB2 | 1:A:21:LEU:HD13 | 20 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD11 | 20 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD12 | 20 | 0.14 |
| (2,615) | 1:A:17:LEU:HB3 | 1:A:21:LEU:HD13 | 20 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 1 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 7 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 14 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 14 | 0.14 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 14 | 0.14 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 14 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 1 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 1 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 1 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 1 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 10 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 10 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 12 | 0.14 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 12 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 12 | 0.14 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 12 | 0.14 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 4 | 0.14 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 10 | 0.14 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 17 | 0.14 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 13 | 0.14 |
| (2,521) | 1:A:34:ARG:HG3 | 1:A:35:GLY:H | 19 | 0.14 |
| (2,455) | 1:A:15:SER:HA | 1:A:25:GLN:HE21 | 5 | 0.14 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 5 | 0.14 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 7 | 0.14 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 13 | 0.14 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 16 | 0.14 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 8 | 0.14 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 8 | 0.14 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 8 | 0.14 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 9 | 0.14 |
| (2,341) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 20 | 0.14 |
| (2,341) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 20 | 0.14 |
| (2,341) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 20 | 0.14 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 19 | 0.14 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 14 | 0.14 |
| (2,332) | 1:A:47:LEU:H | 1:A:47:LEU:HG | 15 | 0.14 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 17 | 0.14 |
| (2,182) | 1:A:34:ARG:HA | 1:A:34:ARG:HD3 | 11 | 0.14 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 5 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 5 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 5 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 5 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 5 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 5 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 14 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 14 | 0.13 |
| (5,98) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 14 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 14 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 14 | 0.13 |
| (5,98) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 14 | 0.13 |
| (5,629) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 17 | 0.13 |
| (5,629) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 17 | 0.13 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 13 | 0.13 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 13 | 0.13 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 20 | 0.13 |
| (5,583) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 20 | 0.13 |
| (5,566) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 9 | 0.13 |
| (5,566) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 9 | 0.13 |
| (5,562) | 1:A:21:LEU:HD11 | 1:A:41:ARG:HG2 | 18 | 0.13 |
| (5,562) | 1:A:21:LEU:HD11 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (5,562) | 1:A:21:LEU:HD12 | 1:A:41:ARG:HG2 | 18 | 0.13 |
| (5,562) | 1:A:21:LEU:HD12 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (5,562) | 1:A:21:LEU:HD13 | 1:A:41:ARG:HG2 | 18 | 0.13 |
| (5,562) | 1:A:21:LEU:HD13 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 10 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 10 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 10 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 8 | 0.13 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 8 | 0.13 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 8 | 0.13 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 8 | 0.13 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 6 | 0.13 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 6 | 0.13 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 6 | 0.13 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 6 | 0.13 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 20 | 0.13 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 20 | 0.13 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 20 | 0.13 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 20 | 0.13 |
| (5,488) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 2 | 0.13 |
| (5,482) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 5 | 0.13 |
| (5,482) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 18 | 0.13 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 8 | 0.13 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 18 | 0.13 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 3 | 0.13 |
| (5,407) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 11 | 0.13 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 15 | 0.13 |
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 15 | 0.13 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 15 | 0.13 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 3 | 0.13 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 10 | 0.13 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 11 | 0.13 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 14 | 0.13 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 5 | 0.13 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 15 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (5,228) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 4 | 0.13 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 8 | 0.13 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 8 | 0.13 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 8 | 0.13 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 18 | 0.13 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 18 | 0.13 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 18 | 0.13 |
| (5,171) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 12 | 0.13 |
| (5,147) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB1 | 9 | 0.13 |
| (5,147) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB2 | 9 | 0.13 |
| (5,147) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB3 | 9 | 0.13 |
| (5,147) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB1 | 9 | 0.13 |
| (5,147) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB2 | 9 | 0.13 |
| (5,147) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB3 | 9 | 0.13 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 5 | 0.13 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 5 | 0.13 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 5 | 0.13 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 5 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 13 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 13 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 13 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 15 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 15 | 0.13 |
| (5,131) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 15 | 0.13 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 6 | 0.13 |
| (2,691) | 1:A:59:ARG:HB2 | 1:A:61:ASP:H | 17 | 0.13 |
| (2,691) | 1:A:59:ARG:HB3 | 1:A:61:ASP:H | 17 | 0.13 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 4 | 0.13 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 4 | 0.13 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 13 | 0.13 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 13 | 0.13 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG2 | 20 | 0.13 |
| (2,645) | 1:A:34:ARG:H | 1:A:34:ARG:HG3 | 20 | 0.13 |
| (2,628) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 9 | 0.13 |
| (2,628) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 9 | 0.13 |
| (2,624) | 1:A:21:LEU:HD11 | 1:A:41:ARG:HG2 | 18 | 0.13 |
| (2,624) | 1:A:21:LEU:HD11 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (2,624) | 1:A:21:LEU:HD12 | 1:A:41:ARG:HG2 | 18 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,624) | 1:A:21:LEU:HD12 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (2,624) | 1:A:21:LEU:HD13 | 1:A:41:ARG:HG2 | 18 | 0.13 |
| (2,624) | 1:A:21:LEU:HD13 | 1:A:41:ARG:HG3 | 18 | 0.13 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 19 | 0.13 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 19 | 0.13 |
| (2,617) | 1:A:17:LEU:HD21 | 1:A:45:ILE:HG12 | 6 | 0.13 |
| (2,617) | 1:A:17:LEU:HD21 | 1:A:45:ILE:HG13 | 6 | 0.13 |
| (2,617) | 1:A:17:LEU:HD22 | 1:A:45:ILE:HG12 | 6 | 0.13 |
| (2,617) | 1:A:17:LEU:HD22 | 1:A:45:ILE:HG13 | 6 | 0.13 |
| (2,617) | 1:A:17:LEU:HD23 | 1:A:45:ILE:HG12 | 6 | 0.13 |
| (2,617) | 1:A:17:LEU:HD23 | 1:A:45:ILE:HG13 | 6 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 3 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 10 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 12 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 17 | 0.13 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 17 | 0.13 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 8 | 0.13 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 8 | 0.13 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 8 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 8 | 0.13 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 6 | 0.13 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 6 | 0.13 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 6 | 0.13 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 6 | 0.13 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 20 | 0.13 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 20 | 0.13 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 20 | 0.13 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 20 | 0.13 |
| (2,547) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 2 | 0.13 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 4 | 0.13 |
| (2,540) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 5 | 0.13 |
| (2,540) | 1:A:24:ASN:HB3 | 1:A:25:GLN:H | 18 | 0.13 |
| (2,532) | 1:A:2:ASN:HB2 | 1:A:2:ASN:HD22 | 18 | 0.13 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 5 | 0.13 |
| (2,522) | 1:A:34:ARG:HG2 | 1:A:35:GLY:H | 9 | 0.13 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 8 | 0.13 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 18 | 0.13 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 3 | 0.13 |
| (2,450) | 1:A:41:ARG:HE | 1:A:44:ASP:H | 11 | 0.13 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG21 | 11 | 0.13 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG22 | 11 | 0.13 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG23 | 11 | 0.13 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 15 | 0.13 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 15 | 0.13 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 15 | 0.13 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 3 | 0.13 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 10 | 0.13 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 11 | 0.13 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 14 | 0.13 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 5 | 0.13 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 15 | 0.13 |
| (2,258) | 1:A:24:ASN:HD21 | 1:A:26:SER:H | 4 | 0.13 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 8 | 0.13 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 8 | 0.13 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 8 | 0.13 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 18 | 0.13 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 18 | 0.13 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 18 | 0.13 |
| (2,195) | 1:A:39:ALA:HA | 1:A:58:LEU:HA | 12 | 0.13 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD11 | 11 | 0.13 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD12 | 11 | 0.13 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD13 | 11 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 3 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 3 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 3 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 19 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 19 | 0.13 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 19 | 0.13 |
| (2,160) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB1 | 9 | 0.13 |
| (2,160) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB2 | 9 | 0.13 |
| (2,160) | 1:A:15:SER:HB2 | 1:A:18:ALA:HB3 | 9 | 0.13 |
| (2,160) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB1 | 9 | 0.13 |
| (2,160) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB2 | 9 | 0.13 |
| (2,160) | 1:A:15:SER:HB3 | 1:A:18:ALA:HB3 | 9 | 0.13 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 5 | 0.13 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 5 | 0.13 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 5 | 0.13 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 5 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 13 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 13 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 13 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD11 | 15 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD12 | 15 | 0.13 |
| (2,144) | 1:A:2:ASN:HA | 1:A:4:ILE:HD13 | 15 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 5 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD11 | 14 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD12 | 14 | 0.13 |
| (2,106) | 1:A:36:ARG:HG2 | 1:A:58:LEU:HD13 | 14 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD11 | 14 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD12 | 14 | 0.13 |
| (2,106) | 1:A:36:ARG:HG3 | 1:A:58:LEU:HD13 | 14 | 0.13 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 6 | 0.13 |
| (5,72) | 1:A:21:LEU:HD21 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (5,72) | 1:A:21:LEU:HD22 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (5,72) | 1:A:21:LEU:HD23 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (5,631) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 3 | 0.12 |
| (5,631) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 3 | 0.12 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 20 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 20 | 0.12 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 20 | 0.12 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (5,587) | 1:A:34:ARG:HG2 | 1:A:34:ARG:HE | 15 | 0.12 |
| (5,587) | 1:A:34:ARG:HG3 | 1:A:34:ARG:HE | 15 | 0.12 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 1 | 0.12 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 1 | 0.12 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 5 | 0.12 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 5 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 3 | 0.12 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 3 | 0.12 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 3 | 0.12 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 3 | 0.12 |
| (5,488) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 14 | 0.12 |
| (5,361) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 18 | 0.12 |
| (5,361) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 18 | 0.12 |
| (5,361) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 18 | 0.12 |
| (5,356) | 1:A:39:ALA:H | 1:A:58:LEU:HD11 | 2 | 0.12 |
| (5,356) | 1:A:39:ALA:H | 1:A:58:LEU:HD12 | 2 | 0.12 |
| (5,356) | 1:A:39:ALA:H | 1:A:58:LEU:HD13 | 2 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 5 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 6 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 7 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 16 | 0.12 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 20 | 0.12 |
| (5,318) | 1:A:61:ASP:H | 1:A:62:VAL:H | 13 | 0.12 |
| (5,305) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 1 | 0.12 |
| (5,305) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 1 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,305) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 1 | 0.12 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 7 | 0.12 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 15 | 0.12 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 14 | 0.12 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 13 | 0.12 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 13 | 0.12 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 13 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 1 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 1 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 1 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 4 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 4 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 4 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 8 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 8 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 8 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 9 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 9 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 9 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 16 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 16 | 0.12 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 16 | 0.12 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 4 | 0.12 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 4 | 0.12 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 4 | 0.12 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 4 | 0.12 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 6 | 0.12 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 6 | 0.12 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 6 | 0.12 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 6 | 0.12 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 1 | 0.12 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 4 | 0.12 |
| (2,79) | 1:A:21:LEU:HD21 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (2,79) | 1:A:21:LEU:HD22 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (2,79) | 1:A:21:LEU:HD23 | 1:A:31:TRP:HH2 | 11 | 0.12 |
| (2,693) | 1:A:60:PRO:HG2 | 1:A:61:ASP:H | 3 | 0.12 |
| (2,693) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 3 | 0.12 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 20 | 0.12 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 20 | 0.12 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 20 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 20 | 0.12 |
| (2,649) | 1:A:34:ARG:HG2 | 1:A:34:ARG:HE | 15 | 0.12 |
| (2,649) | 1:A:34:ARG:HG3 | 1:A:34:ARG:HE | 15 | 0.12 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 1 | 0.12 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 1 | 0.12 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 5 | 0.12 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 5 | 0.12 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 2 | 0.12 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 18 | 0.12 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 18 | 0.12 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 3 | 0.12 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 3 | 0.12 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 3 | 0.12 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 3 | 0.12 |
| (2,547) | 1:A:3:ALA:H | 1:A:6:ILE:HB | 14 | 0.12 |
| (2,455) | 1:A:15:SER:HA | 1:A:25:GLN:HE21 | 9 | 0.12 |
| (2,402) | 1:A:39:ALA:HB1 | 1:A:58:LEU:H | 18 | 0.12 |
| (2,402) | 1:A:39:ALA:HB2 | 1:A:58:LEU:H | 18 | 0.12 |
| (2,402) | 1:A:39:ALA:HB3 | 1:A:58:LEU:H | 18 | 0.12 |
| (2,397) | 1:A:39:ALA:H | 1:A:58:LEU:HD11 | 2 | 0.12 |
| (2,397) | 1:A:39:ALA:H | 1:A:58:LEU:HD12 | 2 | 0.12 |
| (2,397) | 1:A:39:ALA:H | 1:A:58:LEU:HD13 | 2 | 0.12 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 5 | 0.12 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 6 | 0.12 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 7 | 0.12 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 16 | 0.12 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 20 | 0.12 |
| (2,357) | 1:A:61:ASP:H | 1:A:62:VAL:H | 13 | 0.12 |
| (2,341) | 1:A:6:ILE:HG21 | 1:A:50:ASP:H | 1 | 0.12 |
| (2,341) | 1:A:6:ILE:HG22 | 1:A:50:ASP:H | 1 | 0.12 |
| (2,341) | 1:A:6:ILE:HG23 | 1:A:50:ASP:H | 1 | 0.12 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 7 | 0.12 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 15 | 0.12 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 14 | 0.12 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 13 | 0.12 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 13 | 0.12 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 13 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 1 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 1 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 1 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 4 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 4 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 4 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 8 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 8 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 8 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 9 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 9 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 9 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 16 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 16 | 0.12 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 16 | 0.12 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD11 | 1 | 0.12 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD12 | 1 | 0.12 |
| (2,186) | 1:A:36:ARG:HB3 | 1:A:58:LEU:HD13 | 1 | 0.12 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 4 | 0.12 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 4 | 0.12 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 4 | 0.12 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 4 | 0.12 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 6 | 0.12 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 6 | 0.12 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 6 | 0.12 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 6 | 0.12 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 1 | 0.12 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 4 | 0.12 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 19 | 0.11 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 19 | 0.11 |
| (5,613) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 19 | 0.11 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 19 | 0.11 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 19 | 0.11 |
| (5,613) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 19 | 0.11 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (5,595) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 6 | 0.11 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (5,595) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 6 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (5,595) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 6 | 0.11 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 18 | 0.11 |
| (5,576) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 18 | 0.11 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (5,564) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (5,564) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (5,564) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (5,556) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (5,556) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (5,556) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (5,549) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (5,549) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (5,549) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 5 | 0.11 |
| (5,541) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 5 | 0.11 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 5 | 0.11 |
| (5,541) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 5 | 0.11 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 9 | 0.11 |
| (5,537) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 9 | 0.11 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 9 | 0.11 |
| (5,537) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 9 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (5,489) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 8 | 0.11 |
| (5,420) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 1 | 0.11 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 1 | 0.11 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 2 | 0.11 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 4 | 0.11 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 13 | 0.11 |
| (5,350) | 1:A:14:VAL:H | 1:A:15:SER:HA | 15 | 0.11 |
| (5,331) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 19 | 0.11 |
| (5,302) | 1:A:48:TYR:H | 1:A:50:ASP:H | 8 | 0.11 |
| (5,265) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 16 | 0.11 |
| (5,203) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 10 | 0.11 |
| (5,203) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 10 | 0.11 |
| (5,203) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 10 | 0.11 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 13 | 0.11 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 13 | 0.11 |
| (5,173) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 13 | 0.11 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 7 | 0.11 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 7 | 0.11 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 7 | 0.11 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 7 | 0.11 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 14 | 0.11 |
| (5,146) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 14 | 0.11 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 14 | 0.11 |
| (5,146) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 14 | 0.11 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 13 | 0.11 |
| (5,103) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (4,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 13 | 0.11 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG21 | 19 | 0.11 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG22 | 19 | 0.11 |
| (2,675) | 1:A:46:GLU:HG2 | 1:A:49:THR:HG23 | 19 | 0.11 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG21 | 19 | 0.11 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG22 | 19 | 0.11 |
| (2,675) | 1:A:46:GLU:HG3 | 1:A:49:THR:HG23 | 19 | 0.11 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (2,657) | 1:A:37:VAL:HG21 | 1:A:57:GLU:HG3 | 6 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (2,657) | 1:A:37:VAL:HG22 | 1:A:57:GLU:HG3 | 6 | 0.11 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG2 | 6 | 0.11 |
| (2,657) | 1:A:37:VAL:HG23 | 1:A:57:GLU:HG3 | 6 | 0.11 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB2 | 18 | 0.11 |
| (2,638) | 1:A:31:TRP:HE1 | 1:A:38:PRO:HB3 | 18 | 0.11 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (2,626) | 1:A:23:VAL:HG21 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (2,626) | 1:A:23:VAL:HG22 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG2 | 10 | 0.11 |
| (2,626) | 1:A:23:VAL:HG23 | 1:A:41:ARG:HG3 | 10 | 0.11 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 7 | 0.11 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (2,618) | 1:A:17:LEU:HD21 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (2,618) | 1:A:17:LEU:HD22 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB2 | 15 | 0.11 |
| (2,618) | 1:A:17:LEU:HD23 | 1:A:48:TYR:HB3 | 15 | 0.11 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 18 | 0.11 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (2,610) | 1:A:14:VAL:HG21 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (2,610) | 1:A:14:VAL:HG22 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB2 | 20 | 0.11 |
| (2,610) | 1:A:14:VAL:HG23 | 1:A:17:LEU:HB3 | 20 | 0.11 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB2 | 5 | 0.11 |
| (2,602) | 1:A:10:LYS:HD2 | 1:A:48:TYR:HB3 | 5 | 0.11 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB2 | 5 | 0.11 |
| (2,602) | 1:A:10:LYS:HD3 | 1:A:48:TYR:HB3 | 5 | 0.11 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB2 | 9 | 0.11 |
| (2,598) | 1:A:10:LYS:HB2 | 1:A:48:TYR:HB3 | 9 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB2 | 9 | 0.11 |
| (2,598) | 1:A:10:LYS:HB3 | 1:A:48:TYR:HB3 | 9 | 0.11 |
| (2,548) | 1:A:3:ALA:H | 1:A:53:VAL:HB | 8 | 0.11 |
| (2,543) | 1:A:60:PRO:HG3 | 1:A:61:ASP:H | 19 | 0.11 |
| (2,526) | 1:A:34:ARG:HG3 | 1:A:36:ARG:H | 19 | 0.11 |
| (2,465) | 1:A:2:ASN:HD22 | 1:A:33:ALA:HA | 1 | 0.11 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG21 | 2 | 0.11 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG22 | 2 | 0.11 |
| (2,45) | 1:A:3:ALA:HA | 1:A:53:VAL:HG23 | 2 | 0.11 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 1 | 0.11 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 2 | 0.11 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 4 | 0.11 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 13 | 0.11 |
| (2,390) | 1:A:14:VAL:H | 1:A:15:SER:HA | 15 | 0.11 |
| (2,370) | 1:A:24:ASN:HB2 | 1:A:25:GLN:H | 19 | 0.11 |
| (2,338) | 1:A:48:TYR:H | 1:A:50:ASP:H | 8 | 0.11 |
| (2,297) | 1:A:32:ARG:H | 1:A:33:ALA:HA | 16 | 0.11 |
| (2,229) | 1:A:21:LEU:HD11 | 1:A:22:GLY:H | 10 | 0.11 |
| (2,229) | 1:A:21:LEU:HD12 | 1:A:22:GLY:H | 10 | 0.11 |
| (2,229) | 1:A:21:LEU:HD13 | 1:A:22:GLY:H | 10 | 0.11 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG21 | 13 | 0.11 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG22 | 13 | 0.11 |
| (2,198) | 1:A:41:ARG:HA | 1:A:43:ILE:HG23 | 13 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 5 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 5 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 5 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD11 | 13 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD12 | 13 | 0.11 |
| (2,183) | 1:A:36:ARG:HB2 | 1:A:58:LEU:HD13 | 13 | 0.11 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 7 | 0.11 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 7 | 0.11 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 7 | 0.11 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 7 | 0.11 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB2 | 14 | 0.11 |
| (2,159) | 1:A:15:SER:HB2 | 1:A:25:GLN:HB3 | 14 | 0.11 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB2 | 14 | 0.11 |
| (2,159) | 1:A:15:SER:HB3 | 1:A:25:GLN:HB3 | 14 | 0.11 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB2 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD21 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB2 | 13 | 0.11 |

Continued on next page...

Continued from previous page...

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|------------|-----------------|----------------|-----------------|----------------------|
| (2,111) | 1:A:17:LEU:HD22 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB1 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB2 | 13 | 0.11 |
| (2,111) | 1:A:17:LEU:HD23 | 1:A:18:ALA:HB3 | 13 | 0.11 |
| (1,39) | 1:A:44:ASP:O | 1:A:48:TYR:H | 13 | 0.11 |

10 Dihedral-angle violation analysis

Dihedral angle analysis failed due to data error in the dihedral angle restraints, possibly missing target value